Missouri Department of Natural Resources
Air Pollution Control Program

PART 70
PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Operating Permit Number: **OP2011-046B**
Expiration Date: September 22, 2016
Installation ID: 173-0001
Project Number: 2014-02-063

Installation Name and Address
Continental Cement Company LLC
10107 Highway 79
Hannibal, MO 63401
Ralls County

Parent Company's Name and Address
Continental Cement Company LLC
10107 Highway 79
Hannibal, MO 63401

Installation Description:
Continental Cement Company LLC operates a preheater/precalciner Portland cement kiln in Hannibal, Missouri. Other operations at the installation include a SynGyp process and an artificial soil project. The SynGyp process combines raw synthetic gypsum and cement kiln dust which is then used as a substitute for natural gypsum in the production of Portland cement. The artificial soils project is an ongoing project to create artifical soil to support the growth of trees as a renewable alternative fuel source for the cement kiln. The installation is a major source of CO, CO_2e, HAPs, NO_x, SO_x, and PM_{10}.
Amendment A incorporated the special conditions of Construction Permits 072007-008C, 072007-008D, 092012-003, and 102012-003.
Amendment B modifies the installation's maximum kiln feed rate to 226 tph as allowed by the Air Pollution Control Program in a letter dated July 12, 2011.

JUN 06 2014
Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

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Amendment A incorporated the special conditions of Construction Permits 072007-008C, 072007-008D, 092012-003, and 102012-003.

Amendment B:

- Modifies the installation's maximum kiln feed rate to 226 tph as allowed by the Air Pollution Control Program in a letter dated July 12, 2011.
- Includes revised NSPS F standards to reflect the February 12, 2013 final rule.
- Incorporates the special conditions of Construction Permit 092013-017.

Reported Air Pollutant Emissions (tpy)					
Pollutants	**2012**	**2011**	**2010**	**2009**	**2008**
Particulate Matter ≤ Ten Microns (PM_{10})	166.70	81.75	89.56	103.00	175.51
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)	112.20	0.28	0.09	3.81	22.79
Sulfur Oxides (SO_x)	377.00	101.18	29.84	75.11	135.46
Nitrogen Oxides (NO_x)	1,125.01	788.33	645.27	591.21	2413.44
Volatile Organic Compounds (VOC)	53.78	82.50	108.42	87.43	19.76
Carbon Monoxide (CO)	1,086.81	467.94	436.40	549.86	84.78
Hazardous Air Pollutants (HAPs)	62.13	46.29	44.27	42.20	41.30
Hydrogen Chloride (7647-01-0)	61.93	46.11	44.08	42.06	41.25
Isophorone (78-59-1)	-	-	0.0001	0.0001	0.00004
Selenium Compounds (20-16-6)	-	-	-	0.11	0.14
Toluene (108-88-3)	-	-	0.08	0.02	0.01
Xylene (1330-20-7)	-	-	0.03	0.01	0.01
Mercury Compounds (20-13-3)	0.20	0.18	0.02	0.14	0.04
Methanol (67-56-1)	-	-	0.02	0.01	0.01
Ethylbenzene (100-41-4)	-	-	0.01	0.003	0.002
Chromium Compounds (20-06-4)	-	-	0.01	0.002	0.0002
Dichloromethane (75-09-2)	-	-	0.01	0.003	0.003
Antimony Compounds (20-00-8)	-	-	-	0.01	0.01
Lead Compounds (20-11-1)	0.01	-	0.004	0.06	0.10
Cadmium Compounds (20-04-2)	-	-	0.002	0.02	0.02
Glycol Ethers (20-10-0)	-	-	0.0001	0.001	0.00001

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

Emission Unit	Description
AS-01AA	Haul Road - Entrance To Soil Project
AS-02A	Unloading At Artificial Soils Project - Ash
AS-02B	Unloading At Artificial Soils Project - Biosolids
AS-02D	Unloading At Artificial Soils Project - Carbon Source
AS-03A	CKD Storage Pile - Load-In/Out
AS-03B	CKD Storage Pile - Vehicle Activity
AS-03C	CKD Storage Pile - Wind Erosion
AS-04A	Ash Storage Pile - Vehicle Activity
AS-04B	Ash Storage Pile - Load-In/Out
AS-04C	Ash Storage Pile - Wind Erosion
AS-05A	Carbon Source Storage Pile - Vehicle Activity
AS-05B	Carbon Source Storage Pile - Load-In/Out
AS-05C	Carbon Source Storage Pile - Wind Erosion
AS-07A_1	Bottom Layer Mix Pile - Load-In/Out
AS-07A_2	Bottom Layer Mix Pile - Vehicle Activity
AS-07A_3	Bottom Layer Mix Pile - Wind Erosion
AS-07B_1	Top Layer Compost Windrow - Load-In/Out
AS-07B_2	Top Layer Compost Windrow - Vehicle Activity
AS-07B_3	Top Layer Compost Windrow - Wind Erosion
AS-08A	Artificial Soil Placement - Vehicle Activity
AS-08B	Artificial Soil Mixing And Placement - Wind Erosion
AS-08C	Artificial Soil Mixing And Placement - Load-In/Out
CG-01A	Barge Unloading (Coal/Coke)
CG-02AA	Haul Road Unpaved - Entrance To Coal/Coke Stockpile
CG-07A	Gypsum Storage Pile - Load-In/Out
CG-07B	Gypsum Storage Pile - Vehicle Activity
CG-07C	Gypsum Storage Pile - Wind Erosion
CG-08	Haul Road - Gypsum From Mine To Hopper
CG-09B	Gypsum - Unloading At Hopper
CG-09C	Unloading At Coal/Coke Hopper
CG-09E	Hopper Conveyor
CG-09F	Conveyor To Elevator Transfer Point
CG-14	Gypsum Transfer - Elevator To Conveyor
CG-14A	Gypsum Transfer - Conveyor To Conveyor
CG-14B	Gypsum Transfer - Conveyor To Conveyor
CG-14C	Gypsum Transfer - Conveyor To Bin/Conveyor
CG-14D	Gypsum Transfer - Conveyor To Bin
CG-15	Gypsum Storage Bins
CG-16	Gypsum Transfer
CG-17_1	Coal Storage Pile - Load-In/Out
CG-17_2	Coal Storage Pile - Vehicle Activity
CG-17_3	Coal Storage Pile - Wind Erosion
CG-18	Haul Road Unpaved - SynGyp To Outdoor Storage Pile
CG-18A	Haul Road Paved - SynGyp Blend From Plant Entrance To SynGyp Building

CG-19_1	Synthetic Gypsum Storage Pile - Outdoors - Wind Erosion
CG-19_2	Synthetic Gypsum - Outdoor Storage Pile - Load In/Out
CG-19_3	Synthetic Gypsum - Outdoor Storage Pile - Vehicle Activity
CG-21	Coal/Coke Conveyor Baghouse
CG-22	Coal/Coke Conveyor/Bin Baghouse
CG-23	Coal/Coke Mill - Process
CG-24	Fine Coal/Coke Mill Bin Vent
CG-25	Coal/Coke Mill Preheater
CG-26A	Paved Haul Road - Gypsum From Entrance To Rail Hopper
CG-26B	Haul Road Unpaved - Gypsum From Entrance To Railhopper
CM-04A	Clinker Transfer - Elevators
CM-04B	Clinker Transfer - Belt Conveyors
CM-07	Clinker Reclaim Hopper
CM-07A	Clinker Reclaim Hopper Conveyor
CM-07B	Clinker Reclaim Hopper Conveyor
CM-08	Clinker Storage Silos
CM-08_2	Clinker Reclaim Belts 2 & 3
CM-08A-E	Clinker Storage Silos
CM-09A	Clinker Weighing And Transfer
CM-09B	Clinker Weighing And Transfer
CM-09C	Clinker Weighing And Transfer
CM-10	Clinker Grinding Mill 1
CM-10_1	Clinker Grinding Mill 2
CM-10A,F	Finish Mill Elevators 1 & 2
CM-10C,G	Finish Mill 1 & 2 Air Separators
CM-10D,H	Finish Mill 1 & 2 Surge Bins
CM-10E,I	Finish Mill 1 & 2 - 1G & 2G Fringe Bins
CM-10J	Mill Building
CM-11	Reclaim Elevator Transfer
CM-12	Clinker Surge Hopper
CM-12A	Clinker Transfer - Outside Clinker Storage Piles To Hopper
CM-15_1	Clinker Storage Pile - Load-In/Out
CM-15_2	Clinker Storage Pile - Vehicle Activity
CM-15_3	Clinker Storage Pile - Wind Erosion
CM-17	Clinker Cooler Stack
CM-18	Clinker Handling Baghouse
CM-19	Clinker Handling Baghouse
CM-20	Clinker Handling Baghouse
CM-21A	Clinker Silo Vent Baghouse
CM-21B	Clinker Silo Vent Baghouse
CM-21C	Clinker Silo Vent Baghouse
CM-22	New Finish Mill Air Separator Baghouse
CM-23	New Finish Mill Baghouse
CM-24	New Finish Mill Baghouse
CM-25	New Finish Mill Baghouse
CM-26A	Clinker Storage Baghouse
CM-26B	Clinker Storage Baghouse
CM-30_1	Storage Pile - Clinker In Cave - Load-In/Out
CM-30_2	Storage Pile - Clinker In Cave - Vehicle Activity

CM-30_3	Storage Pile - Clinker In Cave - Wind Erosion
CM-31	Haul Road Unpaved - Clinker Outside Stockpile To Cave
CM-32	Haul Road Unpaved - Clinker Storage Cave To Outside Pile
KP-03	CKD Truck Loading From Waste Dust Tank
KP-03A	Haul Road Paved - CKD To Tank Agglomerator
KP-03B	CKD Truck Loading From Agglomerator
KP-04	Haul Road - Waste Dust To Beneficial Reuse Project
KP-04A	Unpaved Haul Road - Agglomerator To Artificial Soils Project
KP-06	CKD Load-Out To Tank/Agglomerator
KP-08	Main Stack - Cement Kiln
KP-09	Kiln Dust – Load-Out Bin Baghouse
KP-10	Alkali Bypass Baghouse - Vents To Main Stack
KP-11	Unpaved Haul Road - Fly Ash from Church Entrance to Raw Mill Feed Building
KP-12	500 ton Fly Ash Silo
KP-13	Airslide
LM-01	Haul Road Paved - Lime Delivery
LM-02	Lime - Transfer To Bin
LS-01	Drilling
LS-02	Truck Loading
LS-03	Truck Unloading
LS-04	Crusher
LS-05	Conveyor
LS-06	Conveyor
LS-07	Conveyor
LS-08	Conveyor
LS-09	Conveyor
LS-10	Conveyor
LS-11	Conveyor
LS-12	Conveyor
LS-13	Hauling
MS-06A	Standby Emergency Generator
MS-06	Standby Emergency Generator
MS-07	Emergency Generator
MS-08	Emergency Fire Pump
RM-01A	Drilling At A1 Quarry
RM-01B	Drilling At Sims Quarry
RM-01C	Drilling At Hi-Mag Quarry
RM-03A	Loading Haul Trucks/Pile Forming Stacker - A1
RM-03B	Loading Haul Trucks/Pile Forming Stacker - Sims
RM-03C	Loading Haul Trucks/Pile Forming Stacker - Hi-Mag
RM-04A	Unpaved Haul Road - A1 Quarry To Crusher
RM-04B	Unpaved Haul Road - Hi-Mag Quarry To Crusher
RM-04C	Unpaved Haul Road - Sims Quarry To Crusher
RM-08	Raw Material Unloading At Crusher - Shale And Clay Combined
RM-08C	Raw Material Unloading At Crusher - Limestone
RM-09	Old Primary Crusher
RM-10_1	Raw Material Transfer Point - Rougher Belt To Crusher Conveyor
RM-10_2	Raw Material Transfer Point - Primary Crusher To Rougher Belt
RM-22_1	Shale Storage Pile Outdoors - Load-In

RM-22_2	Shale Storage Pile Outdoors - Load-Out
RM-22_3	Shale Storage Pile Outdoors - Vehicle Activity
RM-24A	Haul Road Unpaved - Iron Ore From Entrance To Storage
RM-28A	Shale Quarry - Blasting
RM-29	Shale Quarry - Truck Loading Shale
RM-30	Haul Road Unpaved - Shale Quarry To Crusher
RM-31	Transfer Tower 118TT1
RM-35	Top Elevator/Conveyor Baghouse - Raw Mill
RM-37	Airslide Baghouse
RM-39	Blend Silo Vent Baghouse
RM-40	Airslide/Feedbin/Elevator Baghouse
RM-41	Airslide/Elevator Baghouse
RM-50	Unloading Limestone At New Crusher Hopper
RM-51	Limestone Feeder/Grizzly - New Crusher
RM-51_1	New Crusher
RM-51_2	Conveyor Transfer Point
RM-51_3	Conveyor Transfer Point
RM-52	Sizing Screen Transfer
RM-52_1	Transfer From Conveyor To Sizing Screen
RM-52_2	Transfer From Sizing Screen To Conveyor
RM-53	Sizing Screen Transfer
RM-54	Conveyor Transfer
RM-55	Conveyor Transfer
RM-56	Conveyor Transfer
RM-60_1	Limestone Storage Pile - Load-In/Out
RM-60_2	Limestone Storage Pile - Wind Erosion
RM-60_3	Limestone Storage Pile - Vehicle Activity
RM-61_1	Shale Storage Pile - Load-In/Out
RM-61_2	Shale Storage Pile - Vehicle Activity
RM-62_1	Clay Storage Pile - Load-In/Out
RM-62_2	Clay Storage Pile - Vehicle Activity
RM-63_1	Iron Ore Storage Pile - Load-In/Out
RM-63_2	Iron Ore Storage Pile - Wind Erosion
RM-63_3	Iron Ore Storage Pile - Vehicle Activity
RM-64	Raw Material Transfer To Conveyor
RM-65	Raw Material Conveyor Transfer
RM-66_1	Raw Material Conveyor Transfer To Surge Bin
RM-66_2	Raw Material Bin Transfer To Conveyor
RM-67	Transfer To Dust Bin
RM-68	Kiln Feed Airslides
RM-69	Haul Road Unpaved - Clay From Entrance To Stockhouse 5
RM-70	Haul Road Unpaved - Clay From Stockhouse 5 To Crusher
RM-71_1	Clay Storage Pile - Stockhouse 5 - Load-In
RM-71_2	Clay Storage Pile - Stockhouse 5 - Load-Out
RM-71_3	Clay Storage Pile - Stockhouse 5 - Vehicle Activity
RM-71_4	Clay Storage Pile - Stockhouse 5 - Wind Erosion
RM-72	Haul Road Unpaved - Lime Fines From Church Entrance To Quarry
RM-73_1	Lime Fines Storage Pile - Quarry - Load-In/Out
RM-73_2	Lime Fines Storage Pile - Quarry - Vehicle Activity

RM-74_1	Limestone Surge Pile - Load-In/Out
RM-74_2	Limestone Surge Pile - Vehicle Activity
RM-75_1	Shale Surge Storage Pile - New Kiln - Load-In/Out
RM-75_2	Shale Surge Storage Pile - New Kiln - Vehicle Activity
RM-76	Unpaved Haul Road - Limestone Surge Pile To Crusher
RM-77	Limestone Storage Pile
RM-78	Unpaved Haul Road - Limestone from Storage Pile to Crusher
RM-79	Haul Road - Iron/Bottom Ash from Front Entrance to Cave
RM-80	Bottom Ash Cave Storage Pile
RM-81	Iron Ore Cave Storage Pile
RM-82	Iron Ore/Bottom Ash Blend Cave Storage Pile
RM-83	Unpaved Haul Road - Blend from Cave to Raw Material Storage Building
RM-84	Limestone from Front Entrance to New Storage Pile
SF-02A	HWF Blend Tanks w/ Carbon Filter (6) – Working Loss
SF-02B	HWF Blend Tanks W/ Carbon Filter (6) - Breathing Loss
SF-03A	HWF Burn Tank 8 W/ Carbon Filter - Working Loss
SF-03B	HWF Burn Tank 8 W/ Carbon Filter - Breathing Loss
SF-03C	LHWDF Tank - Working Loss
SF-03D	LHWDF Tank - Breathing Loss
SF-04	Ball Mill
SF-05_1	Solid Supplemental Fuel Storage Pile - Load-In/Out
SF-05_2	Solid Supplemental Fuel Storage Pile - Vehicle Activity
SF-05_3	Solid Supplemental Fuel Storage Pile - Wind Erosion
SF-06	Solid Supplemental Fuel De-Clumper
SF-08	Solid Supplemental Fuel Shredder
SF-09	Solid Supplemental Fuel Vibratory Feeder
SF-10	Solid Supplemental Fuel Granulator
SF-11_1	Solid Supplemental Fuel Feed Pile - Load-In/Out
SF-11_2	Solid Supplemental Fuel Feed Pile - Vehicle Activity
SF-11_3	Solid Supplemental Fuel Feed Pile - Wind Erosion
SF-12	Solid Supplemental Fuel Cart Loading
SF-13	Solid Supplemental Fuel Feed Hopper
SF-14	Solid Supplemental Fuel Basket Elevator
SF-15	Filter Cleaning
SF-33	Haul Road Paved - Waste Fuel To Fuel Prep
SF-34	Haul Road Unpaved - Waste Fuel To Fuel Prep
SF-36	Haul Road Paved - LWDF From Rail To Tanks
SF-37	Haul Road Unpaved – LWDF From Rail To Tanks
SF-53	Haul Road Paved - SWDF Feed Carts From Prep To Kiln Burner Building BB-1
SF-53UP	Haul Road from Fuel Building to Kiln
SF-60A	Supplemental Fuel Storage Tank - Railpad - Working Loss
SF-60B	Supplemental Fuel Storage Tank - Railpad - Breathing Loss
SF-61_1	SHWDF Storage Pile In Kiln Burner Building BB-1 - Load-In/Out
SF-61_2	SHWDF Storage Pile In Kiln Burner Building BB-1 - Vehicle Activity
SF-61_3	SHWDF Storage Pile In Kiln Burner Building BB-1 - Wind Erosion
SF-62A	Supplemental Fuel Storage Tank - Railpad - Working Loss
SF-62B	Supplemental Fuel Storage Tank - Railpad - Breathing Loss
SF-70	Truck Loading
SF-71	Drum Dumping

SF-74	Blend Pit 1
SF-75	Blend Pit 2
SF-76	Hopper Loading
SF-77	Belt Conveyor
SF-78	Shredder
SF-79	Belt Conveyor
SF-80	Screen
SF-81	Belt Conveyor
SF-82	Belt Conveyor
SF-83	Magnetic Separation
SF-84	Belt Conveyor
SF-85	Product Pile
SF-86	Hopper Loading
SF-87	Belt Conveyor
SF-88	Truck/Cart Loading
SG-04_1	SynGyp/Blend Storage Pile (Indoor) - Load-In
SG-04_2	SynGyp/Blend Storage Pile (Indoor) - Activity
SG-04_3	SynGyp/Blend Storage Pile (Indoor) - Wind Erosion
SG-05	SynGyp/Blend Storage Pile (Indoor) - Load-Out
SG-06	SynGyp/Blend Transfer - Hopper To Conveyor
SG-07	SynGyp/Blend Transfer - Conveyor To Agglomerator
SG-08	SynGyp/Blend Transfer - Agglomerator To Conveyor
SG-09	SynGyp/Blend Transfer - Conveyor To Silo
SG-10	SynGyp Building
SG-11A	Haul road paved SynGyp from Building to reclaim hopper
SG-21	Belt Conveyor
SG-22	Belt Conveyor
SG-23	Surge Tank
SG-24	Belt Conveyor
SG-25	Belt Conveyor
SG-26	Belt Conveyor
SG-27	Belt Conveyor
SG-28	Belt Conveyor
SG-29	Syn Gyp/Blend Component Hopper
SG-30	Syn Gyp/Blend Component Hopper
SG-31	Syn Gyp/Blend Component Hopper
SG-32	Haul Road - Bottom Ash from Front Entrance to Syn-Gyp Building
SG-33	100 ton Bottom Ash Feed Tank
SG-34	Screw Conveyor
SH-01	Cement Storage - Stockhouse 6
SH-02	Cement Storage Silos - Truck Loading
SH-03	Cement Transfer - Silos Into Pump/Air System
SH-04,5	Belt Truck Loading
SH-07	Cement Storage Silos - River Silos
SH-08	Cement Barge Loading
SH-09	Cement Barge Loading
SH-10	Haul Road Paved - Cement Product Out
TEMP-01	Haul Road Unpaved - Clinker Pile To Temporary Outdoor Clinker Storage
TEMP-02_1	Storage Pile - Load-In/Out

TEMP-02_2	Storage Pile - Vehicle Activity
TEMP-02_3	Storage Pile - Wind Erosion

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Emission Unit	Description
MS-01A	Diesel Fuel Storage Tanks - Breathing Loss
MS-01B	Diesel Fuel Storage Tanks - Working Loss
MS-02A	Bulk Oil Storage Tank - Breathing Loss
MS-02B	Bulk Oil Storage Tank - Working Loss
MS-03A	Waste Oil Storage Tank - Breathing Loss
MS-03B	Waste Oil Storage Tank - Working Loss
MS-04A	Unleaded Gasoline Tank - Breathing Loss
MS-04B	Unleaded Gasoline Tank - Working Loss
MS-05A	Grinding Aid Tank - Breathing Loss
MS-05B	Grinding Aid Tank - Working Loss
RM-22_4	Shale Storage Pile Outdoors - Wind Erosion
RM-28	Shale Quarry - Shale Drilling
RM-61_3	Shale Storage Pile - Wind Erosion
RM-62_3	Clay Storage Pile - Wind Erosion
RM-73_3	Lime Fines Storage Pile - Quarry - Wind Erosion
RM-74_3	Limestone Surge Pile - Wind Erosion
RM-75_3	Shale Surge Storage Pile - New Kiln - Wind Erosion
SF-16	Ball Mill Cleaning
-	6 MMBtu/hr Natural Gas Fired Plant Water Heater

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION PW001

Public Access

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012

Operational Limitation:

Special Condition 19: The permittee shall preclude public access to property that is considered within the non-ambient air zone with respect to the AAQIA conduct for their PSD permit. Installation and maintenance of a fence or other physical barrier shall be the means to preclude public access. A map showing property boundary (precluded areas) can be found in Figure 4, entitled "Continental Cement – Property Boundary" of the AAQIA modeling memo.

Monitoring/Recordkeeping:

1. The permittee shall maintain an operating and maintenance log for the fences using Attachment D or an equivalent form generated by the permittee which shall include the following:
   a) Any maintenance activities conducted on the fences and
   b) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
3. Records may be kept in either written or electronic form.

Reporting:

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION PW002

PSD Permit Configurations

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012

Operational Limitation:

1. Special Condition 20: The permittee shall ensure that the configurations (e.g. location, size, length, etc.) of all emissions sources (e.g. haul road, storage piles, crushers, etc.) are consistent with the information submitted in its PSD permit applications.
2. Special Condition 23: The permittee shall notify the Air Pollution Control Program before initial startup of any modifications to the facility design that could impact the release parameters or emission rates as specified in the memorandum from the Air Pollution Control Program's Modeling Unit titled "AAQIA for Continental Cement Company – PSD Modeling – June 29, 2010 Submittal."

In the event that the Air Pollution Control Program determines that the changes are significant, the permittee shall submit an updated AAQIA to the Air Pollution Control Program that continues to demonstrate compliance with the NAAQS and PSD increment standards.

Monitoring/Reporting:

1. The permittee shall verify that there are no changes in configurations of any of the emission sources each year while completing their Emission Inventory Questionnaire. If any inconsistencies are noted, the permittee shall contact the Air Pollution Control Program to see if a modification of the PSD permit/modeling is required.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION PW003

Containers: NESHAP FF

10 CSR 10-6.080 Emission Standards for HAPs

40 CFR Part 61, Subpart FF – National Emission Standards for Benzene Waste Operations

Applicability:

1. The provisions of this regulation apply to chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries. [§61.340(a)]
2. The provisions of this regulation apply to hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in §61.340(a). The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of NESHAP FF are the benzene-containing hazardous waste from any facility listed in §61.340(a). A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under Subtitle C of the Solid Waste Disposal Act. [§61.340(b)]
3. At each facility identified in §61.340(a) or (b), the following waste is exempt from the requirements of NESHAP FF: [§61.340(c)]
   a) Waste in the form of gases or vapors that is emitted from process fluids: [§61.340(c)(1)]
   b) Waste that is contained in a segregated stormwater sewer system. [§61.340(c)(2)]
4. At each facility identified in §61.340(a) or (b), any gaseous stream from a waste management unit, treatment process, or wastewater treatment system routed to a fuel gas system, as defined in §61.341, is exempt. No testing, monitoring, recordkeeping, or reporting is required for any gaseous stream from a waste management unit, treatment process, or wastewater treatment unit routed to a fuel gas system. [§61.340(d)]

Definitions: [§61.341]

The permittee shall refer to §61.341 for definitions to certain terms used within NESHAP FF.

General Standards:

1. The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than ten percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than ten percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows: [§61.342(a)]

a) Wastes that are exempted from control under §§61.342(c)(2) and 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than ten percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than ten percent. [§61.342(a)(1)]
b) The benzene in a material subject to NESHAP FF that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than ten percent. [§61.342(a)(2)]
c) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility. Wastes generated by remediation activities are subject to the requirements of §61.342(c) through (h). If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than ten percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than ten percent. [§61.342(a)(3)]
d) The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in §61.355(c)(1)(i)(C). [§61.342(a)(4)]

2. The permittee shall be in compliance with the requirements of §61.342(c) through (h) no later than 90 days following the effective date, unless a waiver of compliance has been obtained under §61.11, or by the initial startup for a new source with an initial startup after the effective date. [§61.342(b)]
   a) An existing source unable to comply with the rule within the required time may request a waiver of compliance under §61.10. [§61.342(b)(1)]
   b) As part of the waiver application, the permittee shall submit to the Administrator a plan under §61.10(b)(3) that is an enforceable commitment to obtain environmental benefits to mitigate the benzene emissions that result from extending the compliance date. The plan shall include the following information: [§61.342(b)(2)]
      i) A description of the method of compliance, including the control approach, schedule for installing controls, and quantity of the benzene emissions that result from extending the compliance date; [§61.342(b)(2)(i)]
      ii) If the control approach involves a compliance strategy designed to obtain integrated compliance with multiple regulatory requirements, a description of the other regulations involved and their effective dates; and [§61.342(b)(2)(ii)]
      iii) A description of the actions to be taken at the facility to obtain mitigating environmental benefits, including how the benefits will be obtained, the schedule for these actions, and an estimate of the quantifiable benefits that directly result from these actions. [§61.342(b)(2)(iii)]
3. The permittee shall manage and treat the facility waste as follows: [§61.342(c)]
   a) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than ten percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the permittee shall: [§61.342(c)(1)]
      i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348. [§61.342(c)(1)(i)]

ii) Comply with the standards specified in §61.343, §61.345, and §61.346 for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with §61.342(c)(1)(i). [§61.342(c)(1)(ii)]

iii) Each waste management unit used to manage or treat waste streams that will be recycled to a process shall comply with the standards specified in §61.343, §61.345, and §61.346. Once the waste stream is recycled to a process, including to a tank used for the storage of production process feed, product, or product intermediates, unless this tank is used primarily for the storage of wastes, the material is no longer subject to §61.342(c). [§61.342(c)(1)(iii)]

b) A waste stream is exempt from §61.342(c)(1) provided that the permittee demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than ten ppmw as determined by the procedures specified in §61.355(c)(2) or §61.355(c)(3). [§61.342(c)(2)]

c) A waste stream is exempt from §61.342(c)(1) provided that the permittee demonstrates initially and, thereafter, at least once per year that the conditions specified in either §61.342(c)(3)(i) or (c)(3)(ii) are met. [§61.342(c)(3)]

i) The waste stream is process wastewater that has a flow rate less than 0.02 L/min (0.005 gpm) or an annual wastewater quantity of less than 10 Mg/yr (11 tpy); or [§61.342(c)(3)(i)]

ii) All of the following conditions are met: [§61.342(c)(3)(ii)]

(1) The permittee does not choose to exempt process wastewater under §61.342(c)(3)(i), [§61.342(c)(3)(ii)(A)]

(2) The total annual benzene quantity in all waste streams chosen for exemption in §61.342(c)(3)(ii) does not exceed 2.0 Mg/yr (2.2 tpy) as determined in the procedures in §61.355(j), and [§61.342(c)(3)(ii)(B)]

(3) The total annual benzene quantity in a waste stream chosen for exemption, including process unit turnaround waste, is determined for the year in which the waste is generated. [§61.342(c)(3)(ii)(C)]

4. As an alternative to the requirements specified in §61.342(c) and (e), the permittee may elect to manage and treat the facility waste as follows: [§61.342(d)]

a) The permittee shall manage and treat facility waste other than process wastewater in accordance with the requirements of §61.342(c)(1). [§61.342(d)(1)]

b) The permittee shall manage and treat process wastewater in accordance with the following requirements: [§61.342(d)(2)]

i) Process wastewater shall be treated to achieve a total annual benzene quantity from facility process wastewater less than one Mg/yr (1.1 tpy). Total annual benzene from facility process wastewater shall be determined by adding together the annual benzene quantity at the point of waste generation for each untreated process wastewater stream plus the annual benzene quantity exiting the treatment process for each process wastewater stream treated in accordance with the requirements of §61.342(c)(1)(i). [§61.342(d)(2)(i)]

ii) Each treated process wastewater stream identified in §61.342(d)(2)(i) shall be managed and treated in accordance with §61.342(c)(1). [§61.342(d)(2)(ii)]

iii) Each untreated process wastewater stream identified in §61.342(d)(2)(i) is exempt from the requirements of §61.342(c)(1). [§61.342(d)(2)(iii)]

5. As an alternative to the requirements specified in §61.342(c) and (d), the permittee may elect to manage and treat the facility waste as follows: [§61.342(e)]

a) The permittee shall manage and treat facility waste with a flow-weighted annual average water content of less than ten percent in accordance with the requirements of §61.342(c)(1); and [§61.342(e)(1)]

b) The permittee shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of ten percent or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such that the resulting mixture has an annual water content greater than ten percent, in accordance with the following: [§61.342(e)(2)]
   i) The benzene quantity for the wastes described in §61.342(e)(2) shall be equal to or less than 6.0 Mg/yr (6.6 tpy), as determined in §61.355(k). Wastes as described in §61.342(e)(2) that are transferred offsite shall be included in the determination of benzene quantity as provided in §61.355(k). The provisions of §61.342(f) shall not apply if the permittee elects to comply with the provisions of §61.342(e). [§61.342(e)(2)(i)]
   ii) The determination of benzene quantity for each waste stream defined in §61.342(e)(2) shall be made in accordance with §61.355(k). [§61.342(e)(2)(ii)]

6. Rather than treating the waste onsite, the permittee may elect to comply with §61.342(c)(1)(i) by transferring the waste offsite to another facility where the waste is treated in accordance with the requirements of §61.342(c)(1)(i). The facility transferring the waste shall: [§61.342(f)]
   a) Comply with the standards specified in §61.343, §61.345, and §61.346 for each waste management unit that receives or manages the waste prior to shipment of the waste offsite. [§61.342(f)(1)]
   b) Include with each offsite waste shipment a notice stating that the waste contains benzene which is required to be managed and treated in accordance with the provisions of NESHAP FF. [§61.342(f)(2)]
7. Compliance with NESHAP FF will be determined by review of facility records and results from tests and inspections using methods and procedures specified in §61.355. [§61.342(g)]
8. Permission to use an alternative means of compliance to meet the requirements of §61.342, §61.343, §61.345, §61.346, and §61.348 through §61.351 may be granted by the Administrator as provided in §61.353. [§61.342(h)]

Container Standards:

1. The permittee shall meet the following standards for each container in which waste is placed in accordance with §61.342(c)(1)(ii): [§61.345(a)]
   a) The permittee shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements: [§61.345(a)(1)]
      i) The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.345(a)(1)(i)]
      ii) Except as provided in §61.345(a)(4), each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling. [§61.345(a)(1)(ii)]
   b) When a waste is transferred into a container by pumping, the permittee shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with §61.345(a)(4). [§61.345(a)(2)]

c) Treatment of a waste in a container, including aeration, thermal or other treatment, shall be performed by the permittee in a manner such that while the waste is being treated the container meets the standards specified in §61.345(a)(3)(i) through (iii), except for covers and closed-vent systems that meet the requirements in §61.345(a)(4). [§61.345(a)(3)]
   i) The permittee shall either: [§61.345(a)(3)(i)]
      (1) Vent the container inside a total enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of §61.345(a)(3)(ii)(A) and (B); or [§61.345(a)(3)(i)(A)]
      (2) Vent the covered or closed container directly through a closed-vent system to a control device in accordance with the requirements of §61.345(a)(3)(ii)(B) and (C). [§61.345(a)(3)(i)(B)]
   ii) The permittee shall meet the following requirements, as applicable to the type of air emission control equipment selected by the permittee: [§61.345(a)(3)(ii)]
      (1) The total enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in §5.0 of the "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" in §52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The permittee shall perform the verification procedure for the enclosure as specified in §5.0 of "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the Container Level 3 control requirements in §264.1086(e)(2)(i) or §265.1086(e)(2)(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of NESHAP FF. [§61.345(a)(3)(ii)(A)]
      (2) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §61.349. [§61.345(a)(3)(ii)(B)]
      (3) For a container cover, the cover and all openings (*e.g.,* doors, hatches) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.345(a)(3)(ii)(C)]
   iii) Safety devices, as defined in NESHAP FF, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of §61.345(a)(3)(i). [§61.345(a)(3)(iii)]

d) If the cover and closed-vent system operate such that the container is maintained at a pressure less than atmospheric pressure, the permittee may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met: [§61.345(a)(4)]
   i) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.345(a)(4)(i)]
   ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by methods specified in §61.355(h); and [§61.345(a)(4)(ii)]
   iii) The pressure is monitored continuously to ensure that the pressure in the container remains below atmospheric pressure. [§61.345(a)(4)(iii)]

2. Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly. [§61.345(b)]
3. Except as provided in §61.350, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [§61.345(c)]

Individual Drain System Standards:

1. Except as provided in §61.346(b), the permittee shall meet the following standards for each individual drain system in which waste is placed in accordance with §61.342(c)(1)(ii): [§61.346(a)]
   a) The permittee shall install, operate, and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. [§61.346(a)(1)]
      i) The cover shall meet the following requirements: [§61.346(a)(1)(i)]
         (1) The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.346(a)(1)(i)(A)]
         (2) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. [§61.346(a)(1)(i)(B)]
         (3) If the cover and closed-vent system operate such that the individual drain system is maintained at a pressure less than atmospheric pressure, then §61.346(a)(1)(i)(B) does not apply to any opening that meets all of the following conditions: [§61.346(a)(1)(i)(C)]
            (a) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.346(a)(1)(i)(C)(1)]
            (b) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.346(a)(1)(i)(C)(2)]
            (c) The pressure is monitored continuously to ensure that the pressure in the individual drain system remains below atmospheric pressure. [§61.346(a)(1)(i)(C)(3)]
      ii) The closed-vent system and control device shall be designed and operated in accordance with §61.349. [§61.346(a)(1)(ii)]
   b) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly. [§61.346(a)(2)]
   c) Except as provided in §61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [§61.346(a)(3)]
2. As an alternative to complying with §61.346(a), the permittee may elect to comply with the following requirements: [§61.346(b)]
   a) Each drain shall be equipped with water seal controls or a tightly sealed cap or plug. [§61.346(b)(1)]
   b) Each junction box shall be equipped with a cover and may have a vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter. [§61.346(b)(2)]

i) Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance. [§61.346(b)(2)(i)]
ii) One of the following methods shall be used to control emissions from the junction box vent pipe to the atmosphere: [§61.346(b)(2)(ii)]
(1) Equip the junction box with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation. An example of such a system includes use of water seal controls on the junction box. A flow indicator shall be installed, operated, and maintained on each junction box vent pipe to ensure that organic vapors are not vented from the junction box to the atmosphere during normal operation. [§61.346(b)(2)(ii)(A)]
(2) Connect the junction box vent pipe to a closed-vent system and control device in accordance with §61.349. [§61.346(b)(2)(ii)(B)]

c) Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces. [§61.346(b)(3)]
d) Equipment installed in accordance with §61.346(b)(1), (2), or (3) shall be inspected as follows: [§61.346(b)(4)]
i) Each drain using water seal controls shall be checked by visual or physical inspection initially and thereafter quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water seal controls. [§61.346(b)(4)(i)]
ii) Each drain using a tightly sealed cap or plug shall be visually inspected initially and thereafter quarterly to ensure caps or plugs are in place and properly installed. [§61.346(b)(4)(ii)]
iii) Each junction box shall be visually inspected initially and thereafter quarterly to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge. [§61.346(b)(4)(iii)]
iv) The unburied portion of each sewer line shall be visually inspected initially and thereafter quarterly for indication of cracks, gaps, or other problems that could result in benzene emissions. [§61.346(b)(4)(iv)]
e) Except as provided in §61.350, when a broken seal, gap, crack or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [§61.346(b)(5)]

Treatment Process Standards:

1. Except as provided in §61.348(a)(5), the permittee shall treat the waste stream in accordance with the following requirements: [§61.348(a)]
a) The permittee shall design, install, operate, and maintain a treatment process that: [§61.348(a)(1)]
i) Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene. [§61.348(a)(1)(iii)]
b) The permittee may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of §61.348(a)(1) except as provided in §61.348(a)(5). [§61.348(a)(4)]
c) If the permittee aggregates or mixes any combination of process wastewater, product tank drawdown, or landfill leachate subject to §61.342(c)(1) together with other waste streams to create a combined waste stream for the purpose of facilitating management or treatment of waste in a wastewater treatment system, then the wastewater treatment system shall be operated in

accordance with §61.348(b). These provisions apply to above-ground wastewater treatment systems as well as those that are at or below ground level. [§61.348(a)(5)]

2. Except for facilities complying with §61.342(e), the permittee that aggregates or mixes individual waste streams as defined in §61.348(a)(5) for management and treatment in a wastewater treatment system shall comply with the following requirements: [§61.348(b)]
   a) The permittee shall design and operate each waste management unit that comprises the wastewater treatment system in accordance with the appropriate standards specified in §61.343, §61.345, and §61.346. [§61.348(b)(1)]
   b) The provisions of §61.348(b)(1) do not apply to any waste management unit that the permittee demonstrates to meet the following conditions initially and, thereafter, at least once per year: [§61.348(b)(2)]
      i) The benzene content of each waste stream entering the waste management unit is less than ten ppmw on a flow-weighted annual average basis as determined by the procedures specified in §61.355(c); and [§61.348(b)(2)(i)]
      ii) The total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units comprising the facility wastewater treatment systems is less than one Mg/yr (1.1 tpy). For this determination, total annual benzene quantity shall be calculated as follows: [§61.348(b)(2)(ii)]
         (1) The total annual benzene quantity shall be calculated as the sum of the individual benzene quantities determined at each location where a waste stream first enters an exempt waste management unit. The benzene quantity discharged from an exempt waste management unit shall not be included in this calculation. [§61.348(b)(2)(ii)(A)]
3. The permittee shall demonstrate that each treatment process or wastewater treatment system unit, except as provided in §61.348(d), achieves the appropriate conditions specified in §61.348(a) or (b) in accordance with the following requirements: [§61.348(c)]
   a) Engineering calculations in accordance with requirements specified in §61.356(e); or [§61.348(c)(1)]
   b) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. [§61.348(c)(2)]
4. A treatment process or waste stream is in compliance with the requirements of NESHAP FF and exempt from the requirements of §61.348(c) provided that the permittee documents that the treatment process or waste stream is in compliance with other regulatory requirements as follows: [§61.348(d)]
   a) The treatment process is a hazardous waste incinerator for which the permittee has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 264, Subpart O; [§61.348(d)(1)]
5. Except as specified in §61.348(e)(3), if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance. [§61.348(e)]
   a) Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. [§61.348(e)(1)]
   b) Except as provided in §61.350, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [§61.348(e)(2)]

c) If the cover and closed-vent system operate such that the treatment process and wastewater treatment system unit are maintained at a pressure less than atmospheric pressure, the permittee may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met: [§61.348(e)(3)]
   i) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.348(e)(3)(i)]
   ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.348(e)(3)(ii)]
   iii) The pressure is monitored continuously to ensure that the pressure in the treatment process and wastewater treatment system unit remain below atmospheric pressure. [§61.348(e)(3)(iii)]

6. Except for treatment processes complying with §61.348(d), the Administrator may request at any time that the permittee demonstrate that a treatment process or wastewater treatment system unit meets the applicable requirements specified in §61.348(a) or (b) by conducting a performance test using the test methods and procedures as required in §61.355. [§61.348(f)]
7. Each treatment process or wastewater treatment system unit that is used to comply with the provisions of §61.348 shall be monitored the unit in accordance with the applicable requirements in §61.354. [§61.348(g)]

Closed-vent System and Control Device Standards:

1. For each closed-vent system and control device used to comply with standards in accordance with §61.343, §61.345, §61.346, and §61.348, the permittee shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements: [§61.349(a)]
   a) The closed-vent system shall: [§61.349(a)(1)]
      i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.349(a)(1)(i)]
      ii) Vent systems that contain any bypass line that could divert the vent stream away from a control device used to comply with the provisions of NESHAP FF shall install, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow away from the control device at least once every 15 minutes, except as provided in §61.349(a)(1)(ii)(B). [§61.349(a)(1)(ii)]
         (1) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere. [§61.349(a)(1)(ii)(A)]
         (2) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. [§61.349(a)(1)(ii)(B)]
      iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [§61.349(a)(1)(iii)]
      iv) For each closed-vent system complying with §61.349(a), one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety

practices for handling flammable, explosive, or other hazardous materials. [§61.349(a)(1)(iv)]

b) The control device shall be designed and operated in accordance with the following conditions: [§61.349(a)(2)]
   i) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall meet one of the following conditions: [§61.349(a)(2)(i)]
      (1) Reduce the organic emissions vented to it by 95 weight percent or greater; [§61.349(a)(2)(i)(A)]
      (2) Achieve a total organic compound concentration of 20 ppmv (as the sum of the concentrations for individual compounds using Method 18) on a dry basis corrected to three percent O_2; or [§61.349(a)(2)(i)(B)]
      (3) Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C (1,400 °F). If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. [§61.349(a)(2)(i)(C)]
   ii) A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [§61.349(a)(2)(ii)]
   iii) A control device other than those described in §61.349(a)(2)(i) and (ii) may be used provided that the following conditions are met: [§61.349(a)(2)(iv)]
      (1) The device shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [§61.349(a)(2)(iv)(A)]
      (2) The permittee shall develop test data and design information that documents the control device will achieve an emission control efficiency of either 95 percent or greater for organic compounds or 98 percent or greater for benzene. [§61.349(a)(2)(iv)(B)]
      (3) The permittee shall identify: [§61.349(a)(2)(iv)(C)]
         (a) The critical operating parameters that affect the emission control performance of the device; [§61.349(a)(2)(iv)(C)(1)]
         (b) The range of values of these operating parameters that ensure the emission control efficiency specified in §61.349(a)(2)(iv)(A) is maintained during operation of the device; and [§61.349(a)(2)(iv)(C)(2)]
         (c) How these operating parameters will be monitored to ensure the proper operation and maintenance of the device. [§61.349(a)(2)(iv)(C)(3)]
      (4) The permittee shall submit the information and data specified in §61.349(a)(2)(iv)(B) and (C) to the Administrator prior to operation of the alternative control device. [§61.349(a)(2)(iv)(D)]
      (5) The Administrator will determine, based on the information submitted under §61.349(a)(2)(iv)(D), if the control device subject to §61.349(a)(2)(iv) meets the requirements of §61.349. The control device subject to §61.349(a)(2)(iv) may be operated prior to receiving approval from the Administrator. However, if the Administrator determines that the control device does not meet the requirements of §61.349, the facility may be subject to enforcement action beginning from the time the control device began operation. [§61.349(a)(2)(iv)(E)]

2. Each closed-vent system and control device used to comply with NESHAP FF shall be operated at all times when waste is placed in the waste management unit vented to the control device except

when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device. [§61.349(b)]

3. The permittee shall demonstrate that each control device, achieves the appropriate conditions specified in §61.349(a)(2) by using one of the following methods: [§61.349(c)]
   a) Engineering calculations in accordance with requirements specified in §61.356(f); or [§61.349(c)(1)]
   b) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. [§61.349(c)(2)]
4. The Administrator may request at any time for the permittee to demonstrate that a control device meets the applicable conditions specified in §61.349(a)(2) by conducting a performance test using the test methods and procedures as required in §61.355, and for control devices subject to §61.349 (a)(2)(iv), the Administrator may specify alternative test methods and procedures, as appropriate. [§61.349(e)]
5. Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. [§61.349(f)]
6. Except as provided in §61.350, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than five calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. [§61.349(g)]
7. Each control device that is used to comply with the provisions of §61.349 shall be monitored in accordance with §61.354(c). [§61.349(h)]

Delay of Repair Standards:

1. Delay of repair of facilities or units that are subject to the provisions of NESHAP FF will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. [§61.350(a)]
2. Repair of such equipment shall occur before the end of the next facility or unit shutdown. [§61.350(b)]

Alternative Emissions Limitations:

The permittee shall refer to §61.343 for information regarding alternative emissions limitations under NESHAP FF.

Monitoring:

1. Except for a treatment process or waste stream complying with §61.348(d), the permittee shall monitor each treatment process or wastewater treatment system unit to ensure the unit is properly operated and maintained by the following monitoring procedure: [§61.354(a)]
   a) Install, calibrate, operate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter (or parameters) for the treatment process or wastewater treatment system unit that indicates proper system operation. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the unit is operating properly. [§61.354(a)(2)]

2. If the permittee complies with the requirements of §61.348(b), then the permittee shall monitor each wastewater treatment system to ensure the unit is properly operated and maintained by the appropriate monitoring procedure as follows: [§61.354(b)]
   a) For the first exempt waste management unit in each waste treatment train, measure the flow rate, using the procedures of §61.355(b), and the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in §61.355(c)(3). [§61.354(b)(1)]
3. The permittee subject to the requirements in §61.349 shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly. [§61.354(c)]
   a) For a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± one percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a representative location in the combustion chamber. [§61.354(c)(4)]
   b) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr), a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used. [§61.354(c)(5)]
   c) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either: [§61.354(c)(7)]
      i) A monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the carbon bed; or [§61.354(c)(7)(i)]
      ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle. [§61.354(c)(7)(ii)]
   d) For a vapor recovery system other than a condenser or carbon adsorption system, a monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the control device. [§61.354(c)(8)]
   e) For a control device subject to the requirements of §61.349(a)(2)(iv), devices to monitor the parameters as specified in §61.349(a)(2)(iv)(C). [§61.354(c)(9)]
4. For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, the permittee may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. [§61.354(d)]

5. An alternative operation or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications. [§61.354(e)]
6. Each closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provisions of NESHAP FF shall do the following: [§61.354(f)]
   a) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closure mechanism required under §61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. [§61.354(f)(1)]
   b) Visually inspect the readings from each flow monitoring device required by §61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required. [§61.354(f)(2)]
7. Each system for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the unit to ensure that it is less than atmospheric pressure. [§61.354(g)]

Test Methods and Procedures:

The permittee shall refer to §61.355 for Test Methods and Procedures applicable to NESHAP FF.

Recordkeeping:

1. The permittee shall comply with the recordkeeping requirements of §61.356. Each record shall be maintained in a readily accessible location at the facility site for a period not less than five years from the date the information is recorded unless otherwise specified. [§61.356(a)]
2. The permittee shall maintain records that identify each waste stream at the facility subject to NESHAP FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with NESHAP FF. In addition the permittee shall maintain the following records: [§61.356(b)]
   a) For each waste stream not controlled for benzene emissions in accordance with NESHAP FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.356(b)(1)]
   b) For each waste stream exempt from §61.342(c)(1) in accordance with §61.342(c)(3), the records shall include: [§61.356(b)(2)]
      i) All measurements, calculations, and other documentation used to determine that the continuous flow of process wastewater is less than 0.02 L/min (0.005 gpm) or the annual waste quantity of process wastewater is less than 10 Mg/yr (11 tpy) in accordance with §61.342(c)(3)(i), or [§61.356(b)(2)(i)]
      ii) All measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr (2.2 tpy) in accordance with §61.342(c)(3)(ii). [§61.356(b)(2)(ii)]
   c) For each facility where process wastewater streams are controlled for benzene emissions in accordance with §61.342(d), the records shall include for each treated process wastewater stream all measurements, calculations, and other documentation used to determine the annual benzene quantity in the process wastewater stream exiting the treatment process. [§61.356(b)(3)]

d) For each facility where waste streams are controlled for benzene emissions in accordance with §61.342(e), the records shall include for each waste stream all measurements, including the locations of the measurements, calculations, and other documentation used to determine that the total benzene quantity does not exceed 6.0 Mg/yr (6.6 tpy). [§61.356(b)(4)]
e) For each facility where the annual waste quantity for process unit turnaround waste is determined in accordance with §61.355(b)(5), the records shall include all test results, measurements, calculations, and other documentation used to determine the following information: identification of each process unit at the facility that undergoes turnarounds, the date of the most recent turnaround for each process unit, identification of each process unit turnaround waste, the water content of each process unit turnaround waste, the annual waste quantity determined in accordance with §61.355(b)(5), the range of benzene concentrations in the waste, the annual average flow-weighted benzene concentration of the waste, and the annual benzene quantity calculated in accordance with §61.355(a)(1)(iii). [§61.356(b)(5)]
f) For each facility where wastewater streams are controlled for benzene emissions in accordance with §61.348(b)(2), the records shall include all measurements, calculations, and other documentation used to determine the annual benzene content of the waste streams and the total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units. [§61.356(b)(6)]

3. If the permittee is transferring waste off-site to another facility for treatment in accordance with §61.342(f), the permittee shall maintain documentation for each offsite waste shipment that includes the following information: Date waste is shipped offsite, quantity of waste shipped offsite, name and address of the facility receiving the waste, and a copy of the notice sent with the waste shipment. [§61.356(c)]
4. For control equipment operated in accordance with §61.343, §61.345, and §61.346, the permittee shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). [§61.356(d)]
5. For a treatment process or wastewater treatment system unit operated in accordance with §61.348, the permittee shall maintain the following records. The documentation shall be retained for the life of the unit. [§61.356(e)]
   a) A statement signed and dated by the permittee certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur. [§61.356(e)(1)]
   b) If engineering calculations are used to determine treatment process or wastewater treatment system unit performance, then the permittee shall maintain the complete design analysis for the unit. The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, and other documentation necessary to demonstrate the unit performance. [§61.356(e)(2)]
   c) If performance tests are used to determine treatment process or wastewater treatment system unit performance, then the permittee shall maintain all test information necessary to demonstrate the unit performance. [§61.356(e)(3)]
      i) A description of the unit including the following information: type of treatment process; manufacturer name and model number; and for each waste stream entering and exiting the unit, the waste stream type (e.g., process wastewater, sludge, slurry, etc.), and the design flow rate and benzene content. [§61.356(e)(3)(i)]

ii) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include the following information: sampling locations, sampling method, sampling frequency, and analytical procedures used for sample analysis. [§61.356(e)(3)(ii)]
iii) Records of unit operating conditions during each test run including all key process parameters. [§61.356(e)(3)(iii)]
iv) All test results. [§61.356(e)(3)(iv)]

d) If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). [§61.356(e)(4)]

6. For each closed-vent system and control device operated in accordance with §61.349, the permittee shall maintain the following records. The documentation shall be retained for the life of the control device. [§61.356(f)]
   a) A statement signed and dated by the permittee certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. [§61.356(f)(1)]
   b) If engineering calculations are used to determine control device performance in accordance with §61.349(c), then a design analysis for the control device that includes for example: [§61.356(f)(2)]
      i) Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the permittee, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters: [§61.356(f)(2)(i)]
         (1) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the flame zone. [§61.356(f)(2)(i)(C)]
         (2) For a carbon adsorption system that regenerates the carbon bed directly on-site in the control device such as a fixed-bed adsorber, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon. [§61.356(f)(2)(i)(F)]
         (3) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total

carbon working capacity of the control device and source operating schedule. [§61.356(f)(2)(i)(G)]

(4) For a control device subject to the requirements of §61.349(a)(2)(iv), the design analysis shall consider the vent stream composition, constituent concentration, and flow rate. The design analysis shall also include all of the information submitted under §61.349(a)(2)(iv). [§61.356(f)(2)(i)(H)]

c) If performance tests are used to determine control device performance in accordance with §61.349(c): [§61.356(f)(3)]

i) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameters during the test program. [§61.356(f)(3)(i)]

ii) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity, and construction materials. [§61.356(f)(3)(ii)]

iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis. [§61.356(f)(3)(iii)]

iv) All test results. [§61.356(f)(3)(iv)]

7. The permittee shall maintain a record for each visual inspection required by §61.343, §61.345, and §61.346 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [§61.356(g)]
8. The permittee shall maintain a record for each test of no detectable emissions required by §61.343, §61.345, §61.346, and §61.349. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [§61.356(h)]
9. For each treatment process and wastewater treatment system unit operated to comply with §61.348, the permittee shall maintain documentation that includes the following information regarding the unit operation: [§61.356(i)]

a) Dates of startup and shutdown of the unit. [§61.356(i)(1)]

b) If a process parameter is continuously monitored in accordance with §61.354(a)(2), the permittee shall maintain records that include a description of the operating parameter (or parameters) to be monitored to ensure that the unit will be operated in conformance with these standards and the unit's design specifications, and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the unit. [§61.356(i)(3)]

c) If measurements of waste stream benzene concentration are performed in accordance with §61.354(b), the permittee shall maintain records that include the date each test is performed and all test results. [§61.356(i)(4)]

d) Periods when the unit is not operated as designed. [§61.356(i)(5)]

10. For each control device, the permittee shall maintain documentation that includes the following information regarding the control device operation: [§61.356(j)]
    a) Dates of startup and shutdown of the closed-vent system and control device. [§61.356(j)(1)]
    b) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the control device. [§61.356(j)(2)]
    c) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when: [§61.356(j)(3)]
        i) Any valve car-seal or closure mechanism required under §61.349(a)(1)(ii) is broken or the by-pass line valve position has changed. [§61.356(j)(3)(i)]
        ii) The flow monitoring devices required under §61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required. [§61.356(j)(3)(ii)]
    d) If a boiler or process heater is used, then the permittee shall maintain records of each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone as required by §61.349(a)(2)(i)(C). For a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), the permittee shall maintain continuous records of the temperature of the gas stream in the combustion zone of the boiler or process heater and records of all three-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr), the permittee shall maintain continuous records of the parameter(s) monitored in accordance with the requirements of §61.354(c)(5). [§61.356(j)(6)]
    e) If a carbon adsorber is used, then the permittee shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the permittee shall record all three-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the permittee shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time. [§61.356(j)(9)]
    f) If a carbon adsorber that is not regenerated directly on site in the control device is used, then the permittee shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time then the existing carbon in the control device is replaced with fresh carbon. [§61.356(j)(10)]
    g) If an alternative operational or process parameter is monitored for a control device, as allowed in §61.354(e), then the permittee shall maintain records of the continuously monitored parameter, including periods when the device is not operated as designed. [§61.356(j)(11)]
    h) If a control device subject to the requirements of §61.349(a)(2)(iv) is used, then the permittee shall maintain records of the parameters that are monitored and each occurrence when the parameters monitored are outside the range of values specified in §61.349(a)(2)(iv)(C), or other records as specified by the Administrator. [§61.356(j)(12)]
11. If the permittee elects to install and operate the control equipment in §61.351 shall comply with the recordkeeping requirements in §60.115b. [§61.356(k)]
12. If a system is used for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air, then the permittee shall maintain records of the

monitoring device and records of all periods during which the pressure in the unit is operated at a pressure that is equal to or greater than atmospheric pressure. [§61.356(m)]

13. For each total enclosure used to comply with control requirements for tanks in §61.343 or the control requirements for containers in §61.345, the permittee shall keep the records required in §61.356(n)(1) and (2). The permittee may use records as required in §264.1089(b)(2)(iv) or §265.1090(b)(2)(iv) for a tank or as required in §264.1089(d)(1) or §265.1090(d)(1) for a container to meet the recordkeeping requirement in §61.356(n)(1). The permittee shall make the records of each verification of a total enclosure available for inspection upon request. [§61.356(n)]
    a) Records of the most recent set of calculations and measurements performed to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" in §52.741, Appendix B; [§61.356(n)(1)]
    b) Records required for a closed-vent system and control device according to the requirements in §61.356(d), (f), and (j). [§61.356(n)(2)]
14. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
15. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The permittee shall submit a report which shall include the following information: [§61.357(a)]
    a) Total annual benzene quantity from facility waste determined in accordance with §61.355(a). [§61.357(a)(1)]
    b) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of NESHAP FF. [§61.357(a)(2)]
    c) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF the following information shall be added to the table: [§61.357(a)(3)]
        i) Whether or not the water content of the waste stream is greater than ten percent; [§61.357(a)(3)(i)]
        ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; [§61.357(a)(3)(ii)]
        iii) Annual waste quantity for the waste stream; [§61.357(a)(3)(iii)]
        iv) Range of benzene concentrations for the waste stream; [§61.357(a)(3)(iv)]
        v) Annual average flow-weighted benzene concentration for the waste stream; and [§61.357(a)(3)(v)]
        vi) Annual benzene quantity for the waste stream. [§61.357(a)(3)(vi)]
    d) The information required in §61.357(a)(1), (2), and (3) should represent the waste stream characteristics based on current configuration and operating conditions. The permittee only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in §61.10(a). [§61.357(a)(4)]
2. If the total annual benzene quantity from facility waste is less than one Mg/yr (1.1 tpy), then the permittee shall submit to the Administrator a report that updates the information listed in §61.357(a)(1) through (3) whenever there is a change in the process generating the waste stream that

could cause the total annual benzene quantity from facility waste to increase to one Mg/yr (1.1 tpy) or more. [§61.357(b)]

3. If the total annual benzene quantity from facility waste is less than ten Mg/yr (11 tpy) but is equal to or greater than one Mg/yr (1.1 tpy), then the permittee shall submit to the Administrator a report that updates the information listed in §61.357(a)(1) through (3). The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to ten Mg/yr (11 tpy) or more. If the information in the annual report required by §61.357(a)(1) through (3) is not changed in the following year, the permittee may submit a statement to that effect. [§61.357(c)]
4. If the total annual benzene quantity from facility waste is equal to or greater than ten Mg/yr (11 tpy), then the permittee shall submit to the Administrator the following reports: [§61.357(d)]
   a) A certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests have been carried out in accordance with NESHAP FF. [§61.357(d)(1)]
   b) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that updates the information listed in §61.357(a)(1) through (3). If the information in the annual report required by §61.357(a)(1) through (3) is not changed in the following year, the permittee may submit a statement to that effect. [§61.357(d)(2)]
   c) If the permittee elects to comply with the requirements of §61.342(c)(3)(ii), then the report required by §61.357(d)(2) shall include a table identifying each waste stream chosen for exemption and the total annual benzene quantity in these exempted streams. [§61.357(d)(3)]
   d) If the permittee elects to comply with the alternative requirements of §61.342(d), then he shall include in the report required by §61.357(d)(2) a table presenting the following information for each process wastewater stream: [§61.357(d)(4)]
      i) Whether or not the process wastewater stream is being controlled for benzene emissions in accordance with the requirements of NESHAP FF; [§61.357(d)(4)(i)]
      ii) For each process wastewater stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF, the table shall report the following information for the process wastewater stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity; [§61.357(d)(4)(ii)]
      iii) For each process wastewater stream identified as being controlled for benzene emissions in accordance with the requirements of NESHAP FF, the table shall report the following information for the process wastewater stream as determined at the exit to the treatment process: Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.357(d)(4)(iii)]
   e) If the permittee elects to comply with the alternative requirements of §61.342(e), then the report required by §61.357(d)(2) shall include a table presenting the following information for each waste stream: [§61.357(d)(5)]
      i) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF; the table shall report the following information for the waste stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity; [§61.357(d)(5)(i)]
      ii) For each waste stream identified as being controlled for benzene emissions in accordance with the requirements of NESHAP FF; the table shall report the following information for

the waste stream as determined at the applicable location described in §61.355(k)(2): Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.357(d)(5)(ii)]

f) Beginning three months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of NESHAP FF. [§61.357(d)(6)]

g) Beginning three months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit a report quarterly to the Administrator that includes: [§61.357(d)(7)]

i) If a treatment process or wastewater treatment system unit is monitored in accordance with §61.354(a)(2), then each three-hour period of operation during which the average value of the monitored parameter is outside the range of acceptable values or during which the unit is not operating as designed. [§61.357(d)(7)(ii)]

ii) If a treatment process or wastewater treatment system unit is monitored in accordance with §61.354(b), then each period of operation during which the flow-weighted annual average concentration of benzene in the monitored waste stream entering the unit is equal to or greater than ten ppmw and/or the total annual benzene quantity is equal to or greater than 1.0 mg/yr. [§61.357(d)(7)(iii)]

iii) For a control device monitored in accordance with §61.354(c), each period of operation monitored during which any of the following conditions occur, as applicable to the control device: [§61.357(d)(7)(iv)]

(1) Each three-hour period of operation during which the average temperature of the gas stream in the combustion zone of a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design combustion zone temperature. [§61.357(d)(7)(iv)(C)]

(2) Each three-hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber or other vapor recovery system is more than 20 percent greater than the design concentration level of organics or benzene in the exhaust gas. [§61.357(d)(7)(iv)(D)]

(3) Each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone of a boiler or process heater as required by §61.349(a)(2)(i)(C). [§61.357(d)(7)(iv)(G)]

(4) Each occurrence when the carbon in a carbon adsorber system that is regenerated directly on site in the control device is not regenerated at the predetermined carbon bed regeneration time. [§61.357(d)(7)(iv)(H)]

(5) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in §61.354(c). [§61.357(d)(7)(iv)(I)]

(6) Each three-hour period of operation during which the parameters monitored are outside the range of values specified in §61.349(a)(2)(iv)(C), or any other periods specified by the Administrator for a control device subject to the requirements of §61.349(a)(2)(iv). [§61.357(d)(7)(iv)(J)]

iv) For a cover and closed-vent system monitored in accordance with §61.354(g), the permittee shall submit a report quarterly to the Administrator that identifies any period in which the

pressure in the waste management unit is equal to or greater than atmospheric pressure. [§61.357(d)(7)(v)]

h) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that summarizes all inspections required by §61.342 and §61.343 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. [§61.357(d)(8)]

5. If the permittee is electing to comply with the provisions of §61.351, the permittee shall notify the Administrator of the alternative standard selected in the report required under §61.07 or §61.10. [§61.357(e)]
6. If the permittee elects to install and operate the control equipment in §61.351, the permittee shall comply with the reporting requirements in §60.115b. [§61.357(f)]
7. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION 001 **Emission Unit SF-02A** 10 CSR 10-6.060 Construction Permits Required Construction Permit 0686-002A, Issued October 7, 1986	
Emission Unit	**Description**
SF-02A	HWF Blend Tanks w/ Carbon Filter (6) – Working Loss
SF-02B	HWF Blend Tanks W/ Carbon Filter (6) - Breathing Loss

Operational Limitations:

1. Special Condition 1: The permittee shall only operate six on-site 25,000 gallon fixed roof waste fuel storage tanks equipped with a carbon adsorption system on the tank vents.
2. Special Condition 7: The permittee shall accept and process no more than 21,024,000 gallons of waste fuels in any consecutive 12-month period.
3. Special Condition 8: The permittee shall have enough spare unused carbon at the site at all times sufficient to replace all of the carbon in the active system.
4. Special Condition 9: The permittee shall participate in a periodic blended waste fuels grab sampling program.

Monitoring/Recordkeeping:

1. The permittee shall maintain an accurate record of the amount of waste fuel accepted and processed each month and the rolling 12-month total amount of waste fuel accepted and processed using Attachment A or an equivalent form generated by the permittee.
2. Special Condition 2: The permittee shall maintain records on-site, covering a period to include the previous five calendar years, which show the specific waste solvents received, and the quantities of those waste solvents received. These records shall be accessible to any and all Missouri Air Program enforcement personnel.
3. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
4. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 002 **Emission Units SG-04_1, SG-04_2, SG-04_3, SG-05 – SG-10, SG-11A, and SG-21 – SG-31** 10 CSR 10-6.060 Construction Permits Required Construction Permit 0198-014, Issued December 24, 1997	
Emission Unit	**Description**
SG-04_1	SynGyp/Blend Storage Pile (Indoor) - Load-In
SG-04_2	SynGyp/Blend Storage Pile (Indoor) - Activity
SG-04_3	SynGyp/Blend Storage Pile (Indoor) - Wind Erosion
SG-05	SynGyp/Blend Storage Pile (Indoor) - Load-Out
SG-06	SynGyp/Blend Transfer - Hopper To Conveyor
SG-07	SynGyp/Blend Transfer - Conveyor To Agglomerator
SG-08	SynGyp/Blend Transfer - Agglomerator To Conveyor
SG-09	SynGyp/Blend Transfer - Conveyor To Silo
SG-10	SynGyp Building
SG-11A	Haul road paved SynGyp from Building to reclaim hopper
SG-21	Belt Conveyor
SG-22	Belt Conveyor
SG-23	Surge Tank
SG-24	Belt Conveyor
SG-25	Belt Conveyor
SG-26	Belt Conveyor
SG-27	Belt Conveyor
SG-28	Belt Conveyor
SG-29	Syn Gyp/Blend Component Hopper
SG-30	Syn Gyp/Blend Component Hopper
SG-31	Syn Gyp/Blend Component Hopper

Emission Limitation:

Special Condition 1: The permittee shall not emit more than 15.0 tons of PM_{10} from the SynGyp process in any cumulative 12-month period.

Monitoring/Recordkeeping:

1. Special Condition 2: The permittee shall maintain an accurate record of PM_{10} emissions from the SynGyp process. These records shall include monthly and cumulative 12-month totals. These records shall be kept on-site for the most recent 60-month period of operation and shall be made immediately available to Department of Natural Resources personnel upon request. The records shall be maintained using Attachment B or an equivalent form generated by the permittee.
2. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 3: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate the emission limitation has been exceeded.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 003

Artificial Soils Project - PM

10 CSR 10-6.060 Construction Permits Required

Construction Permit 122001-014, Issued November 16, 2001

Emission Unit	Description
AS-01AA	Haul Road - Entrance To Soil Project
AS-02A	Unloading At Artificial Soils Project - Ash
AS-02B	Unloading At Artificial Soils Project - Biosolids
AS-02D	Unloading At Artificial Soils Project - Carbon Source
AS-03A	CKD Storage Pile - Load-In/Out
AS-03B	CKD Storage Pile - Vehicle Activity
AS-03C	CKD Storage Pile - Wind Erosion
AS-04A	Ash Storage Pile - Vehicle Activity
AS-04B	Ash Storage Pile - Load-In/Out
AS-04C	Ash Storage Pile - Wind Erosion
AS-05A	Carbon Source Storage Pile - Vehicle Activity
AS-05B	Carbon Source Storage Pile - Load-In/Out
AS-05C	Carbon Source Storage Pile - Wind Erosion
AS-07A_1	Bottom Layer Mix Pile - Load-In/Out
AS-07A_2	Bottom Layer Mix Pile - Vehicle Activity
AS-07A_3	Bottom Layer Mix Pile - Wind Erosion
AS-07B_1	Top Layer Compost Windrow - Load-In/Out
AS-07B_2	Top Layer Compost Windrow - Vehicle Activity
AS-07B_3	Top Layer Compost Windrow - Wind Erosion
AS-08A	Artificial Soil Placement - Vehicle Activity
AS-08B	Artificial Soil Mixing And Placement - Wind Erosion
AS-08C	Artificial Soil Mixing And Placement - Load-In/Out

Emission Limitation:

Special Condition 1.A: The permittee shall not discharge into the atmosphere from the artificial soil program PM_{10} in excess of 15 tons in any consecutive 12-month period.

Operational Limitation:

Special Condition 2: The permittee shall water the unpaved haul road and vehicular activity areas around storage piles whenever conditions exist which could cause visible fugitive emissions to enter the ambient air beyond the property boundary.

Monitoring/Recordkeeping:

1. Special Condition 1.B: Attachment C or an equivalent form approved by the Air Pollution Control Program shall be used for this purpose. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
2. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.

3. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 1.C: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate that the source has exceeded emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 004

Emission Unit KP-08

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Kiln -Clinker Production

Emission Unit	Description
KP-08	Main Stack - Cement Kiln

Operational Limitations:

1. Special Condition 4.A: The permittee shall not produce over 3,700 tons of clinker from the new kiln system (KP-08) per day.
2. Special Condition 4.B: The permittee shall not produce over 1,204,500 tons of clinker from the new kiln system (KP-08) per year, on a 12-month rolling average.

Monitoring/Recordkeeping:

1. Special Condition 4.C: The permittee shall maintain an accurate record of clinker production from the new kiln system (KP-08). The installation shall record the daily and annual totals of clinker production from this emission unit using Attachment E or an equivalent form generated by the permittee.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
3. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate that the source has exceeded either of the operational limitations.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 005

Emission Unit KP-08

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012
Kiln – Allowable Fuels

Emission Unit	Description
CG-23	Coal/Coke Mill - Process
CG-25	Coal/Coke Mill Preheater
KP-08	Main Stack - Cement Kiln
KP-10	Alkali Bypass Baghouse - Vents To Main Stack

Operational Limitation:

1. Special Condition 5.A: The permittee shall only combust the following fuels in new PH/PC kiln system (KP-08):
   a) Coal
   b) Petroleum Coke
   c) Solid Hazardous Waste Derived Fuel (SHWDF)
   d) Liquid Hazardous Waste Derived Fuel (LHWDF)
   e) Natural gas (start-up/malfunction only)
   f) Synthetic Gas
   g) Alternative Non-Hazardous Waste Fuels:
      i) Chipped Tires
      ii) Shredded Plastics
      iii) Plastic-backed Paper
      iv) Autoplant Sludge
      v) Automobile Fluff
      vi) Wastewater Sludges
      vii) Industrial Resins
      viii) Furniture Manufacturing Sawdust and Wood Waste
      ix) Tank Bottoms
      x) Spent Carbon
      xi) Off-spec Industrial Products
      xii) Mixed Industrial Debris
      xiii) Other Residential Residues

Emission Limitations:

1. Special Condition 5.B: The permittee shall limit emissions of Mercury, Lead, Cadmium, Arsenic, Beryllium, and Chromium while combusting any of the above listed Alternative Non-Hazardous Waste Fuels so that stack emissions (emissions from CG-23, CG-25, KP-08, and KP-10 are all vented to the main stack) do not exceed:
   a) 120 µg/dscm corrected to seven percent O_2 of Mercury.
   b) 180 µg/dscm combined corrected to seven percent O_2 of Lead and Cadmium.
   c) 54 µg/dscm combined corrected to seven percent O_2 of Arsenic, Beryllium, and Chromium.

Monitoring/Recordkeeping:

1. Special Condition 5.B.2: Compliance with the emission limitations shall be determined through stack testing during regularly schedule comprehensive performance testing for compliance with MACT EEE. Each of the 13 listed Alternative Non-Hazardous Waste Fuels shall undergo stack testing.
2. Special Condition 5.B.3: In lieu of the above listed stack testing, the permittee may conduct activities a) through d) **and** either e) or f) listed below:
   a) Prior to feeding the material to the kiln for combustion, an analysis of the each feed stream shall be completed. A feed stream analysis plan shall be developed and made available to Department of Natural Resources' employees upon request. The feed stream analysis shall specify:
      i) The parameters used to analyze each feed stream,
      ii) The method that will be used for the analysis,
      iii) How the analysis will be used to document compliance with the above listed emission limitations,
      iv) The test methods used to obtain the analysis,
      v) The sampling method used to obtain a representative sample of each feed stream to be analyzed, and
      vi) The frequency with which the initial analysis of the feed stream will be repeated to ensure that the analysis is accurate and up-to-date.
   b) Determine the feedrate of Mercury, Lead, Cadmium, Arsenic, Beryllium, and Chromium from each feed streams.
   c) Determine the stack gas flow rate using a continuous monitoring system.
   d) Calculate a maximum theoretical emission concentration (MTEC) for each metal by dividing the feedrate by the gas flow rate, assuming all Mercury, Lead, Cadmium, Arsenic, Beryllium, and Chromium less system removal efficiency (SRE) as defined in MACT EEE, from all feed streams is emitted. After the calculations of MTEC, the permittee may do either e) or f) below.
   e) Continuously calculate and record the MTEC and interlock the MTEC to the automatic waste feed cutoff to stop feed of the hazardous waste or alternative non-hazardous waste fuel to the kiln which demonstrates a MTEC greater than the emission limitations.
   f) Establish a minimum gas flow rate limit and a maximum feedrate limit of Mercury, Lead, Cadmium, Arsenic, Beryllium, and Chromium to ensure that the MTEC is below the emission limitation. The flow rate limit and the feedrate limit should be interlocked with the automatic waste feed cutoff to stop feed of the hazardous waste or alternative non-hazardous waste fuel to the kiln which demonstrates a MTEC greater than the emission limitations.
3. Special Condition 21: The permittee shall maintain records of all stack testing or activities performed in lieu of stack testing onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
4. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 006

Emission Units CM-15_2, RM-04A, RM-04B, RM-22_3, SF-34, and SF-37

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Unpaved Haul Roads/Vehicular Activity Areas – non-BACT

Emission Unit	Description
CM-15_2	Clinker Storage Pile - Vehicle Activity
RM-04A	Unpaved Haul Road - A1 Quarry To Crusher
RM-04B	Unpaved Haul Road - Hi-Mag Quarry To Crusher
RM-22_3	Shale Storage Pile Outdoors - Vehicle Activity
SF-34	Haul Road Unpaved - Waste Fuel To Fuel Prep
SF-37	Haul Road Unpaved – LWDF From Rail To Tanks

Operational Limitation:

Special Condition 6.A.1: The permittee shall control emissions of PM_{10} from the vehicular traffic areas of the storage piles and unpaved haul roads so as to achieve 90 percent control of PM_{10} by documented watering or the application of chemical dust suppressant.

BMPs/Recordkeeping:

1. Special Condition 6.A.2: If employing a chemical dust suppressant:
   a) The suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) shall be applied in accordance with the manufacturer's suggested application rate and re-applied as necessary to achieve control of fugitive emissions from these areas.
   b) The permittee shall maintain records of the time, date, and the amount of material applied for each application of chemical dust suppressant agent on these areas.
2. Special Condition 6.A.3: If performing documented watering:
   a) The water shall be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 ft^2 of unpaved/untreated surface area of haul roads/vehicle activity areas as necessary to achieve control of fugitive emissions from these areas.
   b) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volume (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on days the areas are in use (e.g., meteorological situations, precipitation events, freezing, etc.).
   c) Meteorological precipitation of any king, (e.g. a quarter inch or more of rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the areas are in use, may be substituted for water application until such time as conditions warrant application of water.
   d) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log that documents the watering.
3. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

4. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 007

Emission Units SF-33, SF-36, SF-53, and SH-10

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Paved Haul Roads – non-BACT

Emission Unit	Description
SF-33	Haul Road Paved - Waste Fuel To Fuel Prep
SF-36	Haul Road Paved - LWDF From Rail To Tanks
SF-53	Haul Road Paved - SWDF Feed Carts From Prep To Kiln Burner Building BB-1
SH-10	Haul Road Paved - Cement Product Out

Operational Limitations:

1. Special Condition 6.B.1: The permittee shall control the emissions of PM_{10} from the paved haul roads so as to achieve 95 percent control of PM_{10} by periodically watering and washing their surfaces.
2. Special Condition 6.B.2: Maintenance and/or repair of the surfaces shall be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.

Monitoring/Recordkeeping:

1. The permittee shall maintain a maintenance log for the haul roads using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log shall include maintenance activities, with inspection schedule, and repair actions, etc.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 008

Emission Units RM-09, RM-10_1, and RM-10_2

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Baghouses – non-BACT

Emission Unit	Description	Control Device
RM-09	Old Primary Crusher	LDC-4 Baghouse
RM-10_1	Raw Material Transfer Point - Rougher Belt To Crusher Conveyor	
RM-10_2	Raw Material Transfer Point - Primary Crusher To Rougher Belt	

Operational Limitations/Emission Limitation:

1. Special Condition 7.A: The permittee shall control the emissions of PM_{10} from the crusher building by holding the building under negative pressure and venting the primary crusher (RM-09) and two transfer points (RM-10_1 and RM-10_2) to a baghouse (LDC-4). The negative pressure should be maintained such that no visible emissions (zero percent opacity) are allowed to occur from the three points (RM-09, RM-10_1, and RM-10_2) except those gases being drawn into the baghouse intake for each point.
2. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications and good engineering practices. Replacement filters for the baghouses shall be available at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Monitoring/Recordkeeping:

1. Special Condition 7.C: The permittee shall perform visible emission checks on each of the three emission points (RM-09, RM-10_1, and RM-10_2) or a visual indicator check on the building at least once each 24-hour period, while the crushing equipment is in operation, using EPA Method 22. The permittee shall maintain records of the results of the daily checks using Attachment F or an equivalent form generated by the permittee.
2. Special Condition 7.B: In lieu of performing visible emission checks on each emission point, the permittee may demonstrate negative building pressure by using a visual indicator such as streamers, talc puff test, etc. at building openings that are not closed during normal operations, i.e., conveyor openings, etc. Each opening in the building must indicate the presence of negative pressure for compliance.
3. The permittee shall maintain an operating and maintenance log for the baghouse using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log shall include the following:
   a) Incidents of malfunction, with impact on emissions, duration of the event, probable cause of the event, and corrective actions; and
   b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
4. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.

2. The permittee shall report any deviations from requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 009

Emission Unit KP-08

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012
And 10 CSR 10-6.380 Control of NO_x Emissions From Portland Cement Kilns

Emission Unit	Description
KP-08	Main Stack - Cement Kiln

Operational Limitations:

1. Special Condition 8.A: The permittee shall control the emissions of NO_x from the new PH/PC kiln system (KP-08) by installing a multi-stage preheater and low-NO_x calciner.
2. Special Condition 8.B: The preheater and calciner shall be in use at all times when the new PH/PC kiln system is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications.

Monitoring/Recordkeeping:

1. The permittee shall maintain an operating and maintenance log for the preheater and calciner using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log shall include the following:
   a) Incidents of malfunction, with impact on emissions, duration of the event, probable cause of the event, and corrective actions; and
   b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
3. The permittee shall retain records, which shall include, but are not limited to the results of any initial performance test, the results of any subsequent performance tests, the date, time and duration of any start-up, shutdown or malfunction in the operation of the cement kiln or the emissions monitoring equipment, as applicable.
4. The permittee shall retain records of daily cement kiln clinker production in tons per day.
5. The permittee shall retain data recorded by their NOx CEMS.
6. The permittee may use performance tests results or NOx CEMS data to tabulate kiln NOx emissions. The annual report shall state which method was used to calculate the reported emissions.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall submit an annual report to the Air Pollution Control Program by October 31st of each year documenting:
   a) Emissions, in pounds of NO_x per ton of clinker produced from the kiln during the period from May 1st through September 30th.
   b) The results of any performance testing.
   c) Cement kiln clinker production, in tons, from May 1st through September 30th.

3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification.

PERMIT CONDITION 010 **Unpaved Haul Road/Vehicular Activity Areas - BACT** 10 CSR 10-6.060 Construction Permits Required Construction Permit 072007-008C, Issued April 23, 2012	
Emission Unit	**Description**
AS-01AA	Haul Road - Entrance To Soil Project
CG-02AA	Haul Road Unpaved - Entrance To Coal/Coke Stockpile
CG-18A	Haul Road Paved - SynGyp Blend From Plant Entrance To SynGyp Building
CG-26B	Haul Road Unpaved - Gypsum From Entrance To Railhopper
CM-30_2	Storage Pile - Clinker In Cave - Vehicle Activity
CM-31	Haul Road Unpaved - Clinker Outside Stockpile To Cave
CM-32	Haul Road Unpaved - Clinker Storage Cave To Outside Pile
KP-04A	Unpaved Haul Road - Agglomerator To Artificial Soils Project
RM-04C	Unpaved Haul Road - Sims Quarry To Crusher
RM-24A	Haul Road Unpaved - Iron Ore From Entrance To Storage
RM-30	Haul Road Unpaved - Shale Quarry To Crusher
RM-60_3	Limestone Storage Pile - Vehicle Activity
RM-61_2	Shale Storage Pile - Vehicle Activity
RM-62_2	Clay Storage Pile - Vehicle Activity
RM-63_3	Iron Ore Storage Pile - Vehicle Activity
RM-69	Haul Road Unpaved - Clay From Entrance To Stockhouse 5
RM-70	Haul Road Unpaved - Clay From Stockhouse 5 To Crusher
RM-72	Haul Road Unpaved - Lime Fines From Church Entrance To Quarry
RM-76	Unpaved Haul Road - Limestone Surge Pile To Crusher

Operational Limitation:

Special Condition 9.A.1: The permittee shall control the emissions of PM_{10} from the vehicular traffic areas of the storage piles and unpaved haul roads so as to achieve 90 percent control of PM_{10} by **either** documented watering or the application of chemical dust suppressant.

BMPs/Recordkeeping:

1. Special Condition 9.A.2: If employing a chemical dust suppressant:
   a) The suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) shall be applied in accordance with the manufacturer's suggested application rate and re-applied as necessary to achieve control of fugitive emissions from these areas.
   b) The permittee shall maintain records of the time, date, and the amount of material applied for each application of chemical dust suppressant agent on these areas.
2. Special Condition 9.A.3: If performing documented watering:
   a) The water shall be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 ft^2 of unpaved/untreated surface area of haul roads/vehicle activity areas as necessary to achieve control of fugitive emissions from these areas.
   b) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volume (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on days the areas are in use (e.g., meteorological situations, precipitation events, freezing, etc.).

c) Meteorological precipitation of any king, (e.g. a quarter inch or more of rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the areas are in use, may be substituted for water application until such time as conditions warrant application of water.
d) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log that documents the watering.

3. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
4. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 011

Emission Units CG-26A and LM-01

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012
Paved Haul Roads - BACT

Emission Unit	Description
CG-26A	Paved Haul Road - Gypsum From Entrance To Rail Hopper
LM-01	Haul Road Paved - Lime Delivery

Operational Limitations:

1. Special Condition 9.B.1: The permittee shall control the emissions of PM_{10} from the paved haul roads so as to achieve 95 percent control of PM_{10} by periodically watering and washing their surfaces.
2. Special Condition 9.B.2: Maintenance and/or repair of the surfaces shall be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.

Monitoring/Recordkeeping:

1. The permittee shall maintain a maintenance log for the haul roads using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log shall include maintenance activities, with inspection schedule, and repair actions, etc.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 012

Emission Units SF-61_1, SF-61_2, and SF-61_3

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

SHWDF Storage Pile Requirements

Emission Unit	Description
SF-61_1	SHWDF Storage Pile In Kiln Burner Building BB-1 - Load-In/Out
SF-61_2	SHWDF Storage Pile In Kiln Burner Building BB-1 - Vehicle Activity
SF-61_3	SHWDF Storage Pile In Kiln Burner Building BB-1 - Wind Erosion

Operational Limitations:

1. Special Condition 9.C.1: The Kiln Burner Building (BB-1) that houses the SHWDF storage pile (SF-61_1, SF-61_2, and SF-61_3) shall be held under negative pressure and vented by the secondary air fans at the clinker cooler to the kiln whenever the kiln is in operation.
2. Special Condition 9.C.2: These fans shall be equipped with monitors, which shall monitor the vacuum on the fans. The monitors shall be located such that Department of Natural Resources' employees may easily observe them.
3. Special Condition 9.C.3: The permittee shall cease operations at the BB-1 Building should negative pressure no longer exist at the fans. Operations at the BB-1 Building may resume upon restoration of negative pressure.
4. Special Condition 9.C.4: When the Kiln is not operating, the SHWDF material on the conveyor belts shall be placed in containers and all material shall be removed from the BB-1 building. No activity, other than maintenance, can be performed in the BB-1 building until the kiln is back in operation.

Monitoring/Recordkeeping:

1. The permittee shall maintain a maintenance log for the fans using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log shall include maintenance activities, with inspection schedule, and repair actions, etc.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 013

Baghouses and Cartridge Filters - BACT

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Emission Unit	Description	Control Device
CG-21	Coal/Coke Conveyor Baghouse	716BF1 Baghouse
CG-22	Coal/Coke Conveyor/Bin Baghouse	716BF2 Baghouse
CG-23	Coal/Coke Mill - Process	726BF1 Baghouse
CG-24	Fine Coal/Coke Mill Bin Vent	746BF2 Baghouse
CM-18	Clinker Handling Baghouse	356BF2 Baghouse
CM-19	Clinker Handling Baghouse	356BF3 Baghouse
CM-20	Clinker Handling Baghouse	356BF4 Baghouse
CM-21A	Clinker Silo Vent Baghouse	356BF5 Baghouse
CM-21B	Clinker Silo Vent Baghouse	356BF6 Baghouse
CM-21C	Clinker Silo Vent Baghouse	356BF7 Baghouse
CM-22	New Finish Mill Air Separator Baghouse	546BF1 Baghouse
CM-23	New Finish Mill Baghouse	545BF2 Baghouse
CM-24	New Finish Mill Baghouse	545BF3 Baghouse
CM-25	New Finish Mill Baghouse	548BF1 Baghouse
CM-26A	Clinker Storage Baghouse	134DE7 Baghouse
CM-26B	Clinker Storage Baghouse	134DE9 Baghouse
KP-03	CKD Truck Loading From Waste Dust Tank	326BF3/326BF4 Baghouse
KP-06	CKD Load-Out To Tank/Agglomerator	326BF5 Baghouse
KP-09	Kiln Dust – Load-Out Bin Baghouse	326BF3 Baghouse
LM-02	Lime - Transfer To Bin	348BF1 Baghouse
RM-31	Transfer Tower 118TT1	118BF1 Baghouse
RM-35	Top Elevator/Conveyor Baghouse - Raw Mill	216BF2 Baghouse
RM-37	Airslide Baghouse	236BF1 Baghouse
RM-39	Blend Silo Vent Baghouse	286BF1 Baghouse
RM-40	Airslide/Feedbin/Elevator Baghouse	283BF2 Baghouse
RM-41	Airslide/Elevator Baghouse	286BF3 Baghouse
RM-51	Limestone Feeder/Grizzly - New Crusher	122BF1 Baghouse
RM-52	Sizing Screen Transfer	122BF2 Baghouse
RM-53	Sizing Screen Transfer	122BF2 Baghouse
RM-54	Conveyor Transfer	122BF3 Baghouse
RM-55	Conveyor Transfer	122BF4 Baghouse
RM-56	Conveyor Transfer	122BF5 Baghouse
RM-64	Raw Material Transfer To Conveyor	134DE Cartridge Filter
RM-65	Raw Material Conveyor Transfer	198BF2 Baghouse
RM-66_1	Raw Material Conveyor Transfer To Surge Bin	136BF7 Baghouse
RM-66_2	Raw Material Bin Transfer To Conveyor	136BF7 Baghouse
RM-67	Transfer To Dust Bin	289BF1 Baghouse
RM-68	Kiln Feed Airslides	275DE Cartridge Filter
SH-07	Cement Storage Silos - River Silos	BDC-1,2 Baghouse

Operational Limitations:

1. Special Condition 9.D: The permittee shall enclose and vent each PM_{10} point source using baghouses and cartridge filters. The enclosure of the emission units shall be constructed and

maintained such that no visible emissions (zero percent opacity from the enclosure) are allowed to occur from these sources except through gases exiting the baghouses or cartridge filters.
2. Special Condition 14.A: The baghouses and cartridge filters shall be in use at all times when the associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The baghouses/cartridge filters shall be equipped with a gauge, meter, or indicator which indicates the pressure drop across the control device. These gauges, meters, or indicators shall be located such that the Department of Natural Resources' employees may easily observe them.
3. Special Condition 14.C: Appropriate replacement filters for each baghouse/cartridge filter shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Emission Limitation:

Special Condition 9.D.1: The permittee shall not emit more than 0.007 gr/dscf of filterable PM_{10} from any of the baghouses or cartridge filters.

Monitoring/Recordkeeping:

1. Special Condition 14.B.1: The permittee shall monitor and record the operating pressure drop across the baghouses/cartridge filters at least once in each 24-hour period when the associated equipment is in operation.
2. Special Condition 14.B.2: Alternatively, the permittee may install an alarm system which checks the pressure drop sensing device for each baghouse/cartridge filter during each system start-up. If the system remains in continuous operation, the alarm check shall be initiated every 24 hours. If the operating pressure drop across the baghouses/cartridge filters does not meet the setting required for proper operation, an alarm shall be activated at the operator's console. Each alarm event shall be recorded in the operating record, and corrective action shall be initiated within the hour.
3. Special Condition 14.D: The permittee shall maintain an operating and maintenance log for each baghouse/cartridge filter using Attachment D or an equivalent form generated by the permittee which shall include the following:
   a) Incidents of malfunction including the dates and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
   b) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
   c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.
4. The permittee shall maintain the stack testing records demonstrating compliance with emission limitation.
5. Records may be kept in either written or electronic form.
6. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 014

Emission Unit CM-17

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Clinker Cooler Baghouse - BACT

Emission Unit	Description	Control Device
CM-17	Clinker Cooler Stack	356BF1 Baghouse

Operational Limitations:

1. Special Condition 9.D: The permittee shall enclose and vent the PM_{10} point source using a baghouse. The enclosure of the emission unit shall be constructed and maintained such that no visible emissions (zero percent opacity from the enclosure) are allowed to occur from the source except through gas exiting the baghouse.
2. Special Condition 14.A: The baghouse shall be in use at all times when the emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge, meter, or indicator which indicates the pressure drop across the control device. The gauge, meter, or indicator shall be located such that the Department of Natural Resources' employees may easily observe it.
3. Special Condition 14.C: Appropriate replacement filters for the baghouse shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Emission Limitation:

Special Condition 9.D.2: The permittee shall not emit more than 0.01 gr/dscf of filterable PM_{10} from the clinker cooler stack baghouse (356BF1).

Monitoring/Recordkeeping:

1. Special Condition 14.B.1: The permittee shall monitor and record the operating pressure drop across the baghouse at least once in each 24-hour period when the emission unit is in operation.
2. Special Condition 14.B.2: Alternatively, the permittee may install an alarm system which checks the pressure drop sensing device for the baghouse during each system start-up. If the system remains in continuous operation, the alarm check shall be initiated every 24 hours. If the operating pressure drop across the baghouse does not meet the setting required for proper operation, an alarm shall be activated at the operator's console. Each alarm event shall be recorded in the operating record, and corrective action shall be initiated within the hour.
3. Special Condition 14.D: The permittee shall maintain an operating and maintenance log for the baghouse using Attachment D or an equivalent form generated by the permittee which shall include the following:
   a) Incidents of malfunction including the dates and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
   b) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
   c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

4. The permittee shall maintain the stack testing records demonstrating compliance with emission limitation.
5. Records may be kept in either written or electronic form.
6. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 015

Emission Units KP-08 and KP-10

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012
Kiln Baghouse - BACT

Emission Unit	Description	Control Device
KP-08	Main Stack - Cement Kiln	316BF1 Baghouse
KP-10	Alkali Bypass Baghouse - Vents To Main Stack	326BF1 Baghouse

Operational Limitations:

1. Special Condition 9.D: The permittee shall enclose and vent each PM_{10} point source using baghouses. The enclosure of the emission units shall be constructed and maintained such that no visible emissions [zero percent opacity from the enclosure] are allowed to occur from the sources except through gases exiting the baghouses.
2. Special Condition 14.A: The baghouses shall be in use at all times when the emission units are in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The baghouses shall be equipped with a gauge, meter, or indicator which indicates the pressure drop across the control device. The gauges, meters, or indicators shall be located such that the Department of Natural Resources' employees may easily observe them.
3. Special Condition 14.C: Appropriate replacement filters for the baghouse shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

Emission Limitations:

1. Special Condition 9.D.3: The permittee shall not emit more than 0.0069 gr/dscf of filterable PM_{10} from the main stack baghouses (316BF1 and 326BF1).
2. Special Condition 9.D.5: Emissions from the main stack of the new PH/PC kiln system (Stack ID 318SK1) shall not exceed the following emission limits, dependent on the limestone raw mix combination, based on a 30-day rolling average. These limits are for total PM_{10}, consisting of both condensable and filterable fractions:
   a) When using 100 percent Burlington limestone, emissions shall not exceed 0.28 pounds of total PM_{10} per ton of clinker.

b) When 0 percent < raw mix ≤ 20 percent Kimmswick limestone, emissions shall not exceed 0.33 pounds of total PM_{10} per ton of clinker.
c) When 20 percent < raw mix ≤ 40 percent Kimmswick limestone, emissions shall not exceed 0.37 pounds of total PM_{10} per ton of clinker.
d) When 40 percent < raw mix ≤ 60 percent Kimmswick limestone, emissions shall not exceed 0.42 pounds of total PM_{10} per ton of clinker.
e) When 60 percent < raw mix ≤ 80 percent Kimmswick limestone, emissions shall not exceed 0.47 pounds of total PM_{10} per ton of clinker.
f) When raw mix > 80 percent Kimmswick limestone, emissions shall not exceed 0.516 pounds of total PM_{10} per ton of clinker.

3. Special Condition 15.A: The permittee shall not emit more than 79.55 pounds of total PM_{10} per hour from the main stack. This limit is for total PM_{10} consisting of both condensable and filterable fractions. The permittee shall demonstrate compliance with this limit through an annual compliance demonstration, consisting of at least three one-hour runs.

Monitoring/Recordkeeping:

1. Special Condition 14.B.1: The permittee shall monitor and record the operating pressure drop across the baghouses at least once in each 24-hour period when the emission units are in operation.
2. Special Condition 14.B.2: Alternatively, the permittee may install an alarm system which checks the pressure drop sensing device for the baghouses during each system start-up. If the system remains in continuous operation, the alarm check shall be initiated every 24 hours. If the operating pressure drop across the baghouses does not meet the setting required for proper operation, an alarm shall be activated at the operator's console. Each alarm event shall be recorded in the operating record, and corrective action shall be initiated within the hour.
3. Special Condition 14.D: The permittee shall maintain an operating and maintenance log for the baghouses using Attachment D or an equivalent form generated by the permittee which shall include the following:
   a) Incidents of malfunction including the dates and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
   b) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
   c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.
4. Special Condition 10.A.4: To document the amount of each type of limestone utilized, the permittee shall record the mass of limestone delivered to the process from each quarry area. The respective mass of Kimmswick and Burlington limestone placed into the process can be measured. The permittee shall calculate the 30-day rolling average limestone raw mix combination using Attachment G or an equivalent form generated by the permittee.
5. Special Condition 9.D.6.A: The permittee shall demonstrate compliance with each of the tiered limits by performing compliance testing within 90 days of initiating the use of a raw material mix constituting a new tier for which a compliance demonstration has not yet been performed (e.g., within 90 days of beginning to use a 40 percent < raw mix ≤ 60 percent Kimmswick limestone).
6. Special Condition 9.D.6.B: An annual compliance demonstration shall be performed for any raw material mix tier group utilized for more than 12 consecutive months. When making a change from one raw material tier group to another, the permittee shall document the tier groups being switch from and to, and the date and time the switch was made.

7. Special Condition 9.D.6.C: Each compliance demonstration shall be made using stack testing results from at least three one-hour runs.
8. Special Condition 18.D: Stack testing shall be conducted during periods of representative conditions and should also be conducted at the maximum process/production rates or within ten percent of this rated capacity, not to include periods of start-up, shutdown, or malfunction. However, if a new stack test is conducted at a production rate which is less than 90 percent of the maximum rated capacity of the equipment, then ten percent above the production rate at which the stack test was conducted shall become the new maximum allowable hourly production rate for the unit.
9. The permittee shall maintain the stack testing records demonstrating compliance with the emission limitations.
10. Records may be kept in either written or electronic form.
11. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 18.B: A completed Proposed Test Plan shall be submitted to the Air Pollution Control Program's Compliance Section at least 30 days prior to the proposed test date of any stack tests so that a pretest meeting may be arranged, if necessary, and to assure that the test date is acceptable for an observer to be present. The Proposed Test Plan shall include specification of test methods to be used and be approved by the Director prior to conducting the stack testing.
2. Special Condition 18.E: Two copies of a written report of the stack test results shall be submitted to the Air Pollution Control Program's Compliance Section within 90 days of completion of the stack testing. The report shall include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one sample run.
3. Special Condition 18.H: The above time frames associated with the stack testing conditions may be extended upon request of the permittee and approval by the Director.
4. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
5. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 016

Emission Unit MS-07

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012
Emergency Generator - BACT

Emission Unit	Description
MS-07	Emergency Generator

Emission Limitations:

1. Special Condition 9.E.1: The permittee shall not emit more than 0.33 pounds of total PM_{10} per hour of operation from the emergency generator (MS-07) in order to meet BACT.
2. Special Condition 10.B.1: The permittee shall not emit more than 0.01 pounds of SO_2 per hour of operation from the emergency generator (MS-07) in order to meet BACT.

3. Special Condition 11.B.1: The permittee shall not emit more than 2.08 pounds of CO per hour of operation from the emergency generator (MS-07) in order to meet BACT.

Operational Limitations:

1. Special Condition 13.A: The permittee shall operate the emergency generator (MS-07) only in the event of interruption of electric power from the local utility and for short periods of time to perform maintenance and operational readiness testing.
2. Special Condition 13.B: The permittee shall not operate the emergency generator for more than 500 hours annually. The generator shall be equipped with a non-resettable meter to record the annual hours of operation for compliance.
3. Special Condition 13.C: The sulfur content of the diesel fuel combusted in the emergency generation at the installation shall not exceed 15 ppmw. The permittee shall obtain and record, for each fuel oil delivery from the fuel vendors the sulfur content of the diesel fuel. The permittee may alternatively conduct their own fuel analysis.

Monitoring/Recordkeeping:

1. The permittee shall maintain the stack testing records demonstrating compliance with the emission limitations.
2. The permittee shall retain the Operating and Maintenance Manual for the emergency generator and comply with the manual's contents.
3. Records may be kept in either written or electronic form.
4. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 017

Emission Units CG-25, KP-08, and KP-10

10 CSR 10-6.060 Construction Permits Required
Construction Permit 072007-008C, Issued April 23, 2012 and
Construction Permit 072007-008D, Issued March 26, 2012
Kiln – SO_2, CO, and VOC BACT

Emission Unit	Description
CG-25	Coal/Coke Mill Preheater
KP-08	Main Stack - Cement Kiln
KP-10	Alkali Bypass Baghouse - Vents To Main Stack

Operational Limitations:

1. Construction Permit 072007-008C Special Condition 10.A.1: The permittee shall control the emission of SO_2 from the new PH/PC kiln system (KP-08) by installing spray drying systems (towers) on the alkali bypass stream and on the stream that normally vents to the raw mill, when the

raw mill is not in operation (raw mill bypass stream) in order to meet BACT.
   a) The alkaline spray tower on the alkali bypass line shall be in use at all times when kiln exhaust is routed to the alkali bypass line.
   b) The raw mill bypass line spray tower shall be in use at all times that the raw mill is **not** in operation.
2. Construction Permit 072007-008C Special Condition 10.A.2: The spray towers shall be operated and maintained in accordance with the manufacturer's specifications.
3. Construction Permit 072007-008C Special Condition 10.A.5: The permittee shall operate continuous SO_2 emission monitors (CEMS) to measure, record, and report SO_2 emissions compliance.
4. Construction Permit 072007-008D Special Condition 2.A.: The permittee shall use good combustion practices at all times for the new PH/PC kiln system (KP-08) and the coal mill preheater (CG-25) in order to meet BACT.
5. Construction Permit 072007-008C Special Condition 11.A.5: The permittee shall operate continuous CO emission monitors to measure, record, and report CO emissions compliance.
6. Construction Permit 072007-008D Special Condition 2.D: Continuous CO emission monitors shall be used as a surrogate for VOC limitations compliance.
7. Construction Permit 072007-008C Special Condition 17.A: The permittee shall install, certify, operate, calibrate, test, and maintain CEMS for SO_2 and CO and any necessary auxiliary monitoring equipment in accordance with all applicable regulations. If there are conflicting regulatory requirements, the more stringent shall apply.
8. Construction Permit 072007-008C Special Condition 17.B: The permittee shall install and operate a data acquisition and handling system to calculate emissions in terms of the emission limitations specified in this permit.

Emission Limitations:

1. Construction Permit 072007-008C Special Condition 10.A.3: Emissions from the main stack of the new PH/PC kiln system (Stack ID 318SK1) shall not exceed the following emission limits, dependent on the limestone raw mix combination, based on a 30-day rolling average:
   a) When using 100 percent Burlington limestone, emissions shall not exceed 0.63 pounds of SO_2 per ton of clinker.
   b) When 0 percent < raw mix $\leq$ 20 percent Kimmswick limestone, emissions shall not exceed 0.89 pounds of SO_2 per ton of clinker.
   c) When 20 percent < raw mix $\leq$ 40 percent Kimmswick limestone, emissions shall not exceed 1.15 pounds of SO_2 per ton of clinker.
   d) When 40 percent < raw mix $\leq$ 60 percent Kimmswick limestone, emissions shall not exceed 1.41 pounds of SO_2 per ton of clinker.
   e) When 60 percent < raw mix $\leq$ 80 percent Kimmswick limestone, emissions shall not exceed 1.67 pounds of SO_2 per ton of clinker.
   f) When raw mix > 80 percent Kimmswick limestone, emissions shall not exceed 1.93 pounds of SO_2 per ton of clinker.
2. Construction Permit 072007-008C Special Condition 15.B: The permittee shall not emit more than 550 pounds of SO_2 per hour from the main stack based on a three-hour rolling average. The permittee shall demonstrate compliance with this condition using the SO_2 CEMS.
3. Construction Permit 072007-008C Special Condition 15.C: The permittee shall not emit more than 297.6 pounds of SO_2 per hour from the main stack based on a 24-hour rolling average. The permittee shall demonstrate compliance with this condition using the SO_2 CEMS.

4. Construction Permit 072007-008C Special Condition 11.A.2: Emissions from the main stack of the new PH/PC kiln system (Stack ID 318SK1) shall not exceed the following emission limits, dependent on the limestone raw mix combination, based on a 30-day rolling average:
   a) When using 100 percent Burlington limestone, emissions shall not exceed 1.38 pounds of CO per ton of clinker.
   b) When 0 percent < raw mix ≤ 20 percent Kimmswick limestone, emissions shall not exceed 1.82 pounds of CO per ton of clinker.
   c) When 20 percent < raw mix ≤ 40 percent Kimmswick limestone, emissions shall not exceed 2.27 pounds of CO per ton of clinker.
   d) When 40 percent < raw mix ≤ 60 percent Kimmswick limestone, emissions shall not exceed 2.71 pounds of CO per ton of clinker.
   e) When 60 percent < raw mix ≤ 80 percent Kimmswick limestone, emissions shall not exceed 3.16 pounds of CO per ton of clinker.
   f) When raw mix > 80 percent Kimmswick limestone, emissions shall not exceed 3.60 pounds of CO per ton of clinker.
5. Construction Permit 072007-008C Special Condition 15.D: The permittee shall not emit more than 1,300 pounds of CO per hour, based on a one-hour rolling average. The permittee shall demonstrate compliance with this condition using the CO CEMS.
6. Construction Permit 072007-008D Special Condition 2.B: Emissions from the main stack of the new PH/PC kiln system (Stack ID 318SK1) shall not exceed the following emission limits, depending on the limestone raw mix combination, based on a 30-day rolling average:
   a) When using 100 percent Burlington limestone, emissions shall not exceed 0.08 pounds of VOC per ton of clinker.
   b) When 0 percent < raw mix ≤ 20 percent Kimmswick limestone, emissions shall not exceed 0.13 pounds of VOC per ton of clinker.
   c) When 20 percent < raw mix ≤ 40 percent Kimmswick limestone, emissions shall not exceed 0.18 pounds of VOC per ton of clinker.
   d) When 40 percent < raw mix ≤ 60 percent Kimmswick limestone, emissions shall not exceed 0.23 pounds of VOC per ton of clinker.
   e) When 60 percent < raw mix ≤ 80 percent Kimmswick limestone, emissions shall not exceed 0.28 pounds of VOC per ton of clinker.
   f) When raw mix > 80 percent Kimmswick limestone, emissions shall not exceed 0.33 pounds of VOC per ton of clinker.
7. Construction Permit 072007-008C Special Condition 17.C: Compliance with the SO_2 and CO emission limits for the new PH/PC kiln system shall be demonstrated through the use of the required CEMS.

Monitoring/Recordkeeping:

1. Construction Permit 072007-008D Special Condition 2.C: To document the amount of each type of limestone utilized, the permittee shall record the mass of limestone delivered to the process from each quarry area. The respective mass of Kimmswick and Burlington limestone placed into the process can be measured. The permittee shall calculate the 30-day rolling average limestone raw mix combination using Attachment G or an equivalent form generated by the permittee.
2. Records may be kept in either written or electronic form.
3. Construction Permit 072007-008C Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. Construction Permit 072007-008C Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 018

Emission Units SF-03C and SF-03D

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

LHWDF Tank Requirements

Emission Unit	Description
SF-03C	LHWDF Tank - Working Loss
SF-03D	LHWDF Tank - Breathing Loss

Operational Limitations:

1. Special Condition 11.C: The permittee shall vent all vapors emanating from the LHWDF tanks (SF-03C and SF-03D) to a carbon adsorption bed.
2. The permittee shall have enough spare unused carbon at the site at all times sufficient to replace all of the carbon in the active system.

Monitoring/Recordkeeping:

1. In order to ensure that the adsorbers operate at an efficiency of at least 95 percent, the permittee is required to conduct performance testing, in accordance with EPA Methods 21 and 25. The permittee shall provide the Director at least 30 days prior notice of the performance tests, to allow the Director the opportunity to have an observer present. The leak testing (EPA Method 21) shall then be conducted on all equipment associated with the adsorber system in order to ensure that the leak rates noted during the conduction of the initial performance testing are not exceeded. These leak tests shall be performed at least once per month, and the results of these tests both kept on file at the plant site and sent to the Air Pollution Control Program. Should results of the leak tests or visual inspection of the equipment warrant, future compliance tests may be required by this agency in order to ensure that the 95 percent level of control is met. Should results of the leak tests show higher leak rates than were noted during the initial performance testing, the permittee shall be required to take such action as necessary in order to remedy the causes of any such leaks and restore the operation of the system to its original performance level.
2. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall retain leak testing results demonstrating proper operation of the carbon adsorption bed.
4. The permittee shall retain all records onsite and make them immediately available to Department of Natural Resources' personnel upon request.
5. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 019

Emission Unit KP-08

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Kiln – Sulfur-to-Alkali Ratio

Emission Unit	Description
KP-08	Main Stack - Cement Kiln

Operational Limitation:

Special Condition 12.A.1: The permittee shall ensure the kiln operates within the sulfur-to-alkali ratio range.

Monitoring/Recordkeeping:

1. Special Condition 12.B: The permittee shall evaluate the impact of fuel sulfur content on SO_2 emissions from the new PH/PC kiln system's (KP-08) main stack to establish a sulfur-to-alkali ratio in the kiln in accordance with the following procedures:
   a) The difference between the upper and lower points of the sulfur-to-alkali ratio range shall span less than 0.4 (i.e. 0.8 to 1.2, 1.1 to 1.5, etc.)
   b) Fuels with a representative range of sulfur content should be evaluated, including fuel containing the maximum fuel sulfur content the permittee intends to utilize in the new kiln system. Each evaluation period shall last for a minimum of 24 hours. There shall be, at a minimum, one evaluation period per 1.0 percent increase in the fuel sulfur content (e.g. 0.0 percent sulfur, 1.0 percent sulfur, 2.0 percent sulfur)
   c) SO_2 emissions shall be recorded using the SO_2 CEMS for each evaluation period.
   d) The evaluation shall be conducted during periods of representative conditions and should also be conducted at the maximum process/production rates or within ten percent of this rated capacity, not to include periods of start-up, shutdown, or malfunction.
   e) Upon approval of the Director, based on a finding that changes in SO_2 emissions are statistically insignificant when compared to fuel sulfur content, the permittee may cease testing and recording of the sulfur-to-alkali ratio and related requirements for fuels having a sulfur content up to the maximum fuel sulfur content included in the demonstration.
2. Special Condition 12.B.5.A: The permittee shall test the sulfur content of the fuel used during each evaluation period. The fuel sulfur content shall be recorded and remain constant during each evaluation period.
3. Special Condition 12.B.5.B: The permittee shall test the sulfur content of the raw material used during each evaluation period. The raw material feed sulfur content shall be recorded and remain constant during each evaluation period.
4. Special Condition 12.B.5.C: The raw mill shall be in operation during each evaluation period. The hourly throughput of the raw mill shall be recorded and remain constant during each evaluation period.

5. Special Condition 12.B.5.D: The coal mill shall be operated for the same fraction of each evaluation period. The hourly throughput of the coal mill shall remain constant while the coal mill is in operation and the hourly throughput shall be recorded during the evaluation.
6. Special Condition 12.B.5.E: The alkali bypass scrubber shall be in operation during each evaluation period. The hourly alkaline slurry injection flow rate shall be recorded and remain constant during each evaluation period.
7. Special Condition 12.A.3: The evaluation procedure may be repeated and the sulfur-to-alkali ration may be re-established as needed.
8. Special Condition 12.A.2: The permittee shall retain a log containing test results of the ratio on a daily basis for compliance.
9. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
10. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 12.B.5: Two copies of a written report of the evaluation results shall be submitted to the Air Pollution Control Program's Compliance Section within 90 days of completion of the evaluation. The report shall include copies of the CEMS data, a statistical analysis of the CEMS readings, test results for fuel and raw material sulfur content, and the recorded values for each of the following operating parameters:
   a) Fuel Sulfur Content
   b) Raw Material Sulfur Content
   c) Raw Mill Hourly Throughput
   d) Coal Mill Throughput
   e) Alkali Bypass Scrubber Alkaline Slurry Injection Flow Rate
2. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 020

Processing/Handling Limitations

10 CSR 10-6.060 Construction Permits Required

Construction Permit 072007-008C, Issued April 23, 2012

Emission Unit	Description	Emission Unit	Description
AS-01AA	Haul Road	RM-29	Shale Quarry - Truck Loading
AS-02A	Unloading - Ash	RM-30	Shale Quarry Haul Road Unpaved
AS-02B	Unloading - Biosolids	RM-31	Transfer Tower 118TT1
AS-02D	Unloading - Carbon Source	RM-50	Unloading Limestone
CG-01A	Barge Unloading (Coal/Coke)	RM-51	Limestone Feeder/Grizzly
CG-02AA	Haul Road Unpaved	RM-51_1	New Crusher
CG-09B	Gypsum - Unloading At Hopper	RM-51_2	Conveyor Transfer Point
CG-09E	Hopper Conveyor	RM-51_3	Conveyor Transfer Point
CG-09F	Transfer Point	RM-52_1	Transfer From Conveyor
CG-14	Gypsum Transfer	RM-52_2	Transfer From Sizing Screen
CG-14A	Gypsum Transfer	RM-53	Sizing Screen Transfer
CG-14B	Gypsum Transfer	RM-54	Conveyor Transfer
CG-14C	Gypsum Transfer	RM-55	Conveyor Transfer
CG-14D	Gypsum Transfer	RM-56	Conveyor Transfer
CG-16	Gypsum Transfer	RM-60_1	Limestone Storage Pile – Load-In/Out and Vehicle Activity
CG-17_1	Coal Storage Pile - Load-In/Out and Vehicle Activity	RM-60_3	
CG-17_2		RM-61_1	Shale Storage Pile - Loading
CG-18A	SynGyp Blend Haul Road Paved	RM-61_2	Shale Storage Pile - Vehicle Activity
KP-03	CKD Truck Loading	RM-62_1	Clay Storage Pile - Load-In/Out and Vehicle Activity
LM-01	Lime Delivery Haul Road Paved	RM-62_2	
RM-01A	Drilling At A1 Quarry	RM-63_1	Iron Ore Storage Pile - Load-In/Out and Vehicle Activity
RM-01B	Drilling At Sims Quarry	RM-63_3	
RM-01C	Drilling At Hi-Mag Quarry	RM-70	Haul Road Unpaved
RM-03A	Loading Haul Trucks - A1	RM-72	Haul Road Unpaved
RM-03B	Loading Haul Trucks - Sims	SF-33	Haul Road Paved
RM-03C	Loading Haul Trucks - Hi-Mag	SF-34	Haul Road Unpaved
RM-04A	Unpaved Haul Road	SF-36	Haul Road Paved
RM-04B	Unpaved Haul Road	SF-37	Haul Road Unpaved
RM-04C	Unpaved Haul Road	SF-53	Haul Road Paved
RM-08	Raw Material Unloading	SG-11A	Haul Road Paved
RM-08C	Raw Material Unloading	SH-04,5	Belt Truck Loading
RM-09	Old Primary Crusher	SH-07	Cement Storage Silos - River Silos
RM-10_1	Raw Material Transfer Point	SH-08	Cement Barge Loading
RM-10_2	Raw Material Transfer Point	SH-09	Cement Barge Loading
RM-24A	Haul Road Unpaved		

Operational Limitations:

1. Special Condition 16.A: The permittee shall not process/handle more than 2,000 tons per day of shale from truck loading through hauling to the primary raw materials crusher (RM-29 and RM-30).
2. Special Condition 16.B: The permittee shall not process/handle more than 4,000 tons of combined shale and clay per day, and more than 7,500 tons of limestone per day from the truck unloading at the primary raw materials primary crusher through unloading at the raw material storage building

(RM-08, RM-08C RM-09, RM-10_1, RM-10_2, RM-31, RM-54, RM-55, RM-56, RM-61_1, RM-61_2, RM-62_1, and RM-62_2) on days when any shale and/or clay is processed/handled. On days during which no shale and no clay is processed/handled, the facility shall not process/handle more than 11,500 tons of limestone per day from these pieces of equipment.

3. Special Condition 16.C: The permittee shall not process/handle more than 300 tons per day of iron ore from hauling into plant through unloading at the raw material storage building (RM-24A, RM-63_1, and RM-63_3).
4. Special Condition 16.D: The permittee shall not process/handle more than 3,500 tons per day of limestone from the A1 Quarry (RM-01A, RM-03A, and RM-04A).
5. Special Condition 16.E: The permittee shall not process/handle more than 7,500 tons per day of limestone each from the Sims Quarry or the Hi-Mag Quarry (Sims Quarry: RM-01B, RM-03B, and RM-04B; Hi-Mag Quarry: RM-01C, RM-03C, and RM-04C).
6. Special Condition 16.F: The permittee shall not process/handle more than 7,500 tons limestone per day, 2,000 tons shale per day, and 2,000 tons clay per day from the hopper through unloading at the raw material storage building (RM-50, RM-51, RM-51_1, RM-51_2, RM-51_3, RM-52_1, RM-52_2, RM-53, RM-60_1, and RM-60_3) on days when shale and/or clay is processed/handled. On days during which no shale and no clay is processed/handled by this equipment/activities, the permittee shall process no more than 11,500 tons of limestone by this equipment/activities.
7. Special Condition 16.G: The permittee shall not haul more than a combined total of 800 tons per day of gypsum (synthetic or natural) on the haul road (CG-18A) in and out of the plant.
8. Special Condition 16.H: The permittee shall not process/handle more than 325 tons per day of natural gypsum (CG-09B, CG-09E, CG-09F, CG-14, CG-14A, CG-14B, CG-14C, CG-14D, and CG-16).
9. Special Condition 16.I: The permittee shall not haul more than 60 tons per day of lime into the plant on the haul road (LM-01).
10. Special Condition 16.J: The permittee shall not process/handle more than a combined total of 900 tons per day of coal and pet coke from barge unloading or truck hauling offsite to the coal/coke storage pile (CG-01A, CG-02AA, CG-17_1, and CG-17_2).
11. Special Condition 16.K: The permittee shall not haul more than 600 tons per day of supplemental fuels into the plant (SF-33 and SF-34 **or** SF-36 and SF-37).
12. Special Condition 16.L: The permittee shall not haul more than 200 tons per day of waste fuel from fuel prep to solid waste storage (SF-53).
13. Special Condition 16.M: The permittee shall not load more than 250 tons per day of cement kiln dust into trucks per day (KP-03).
14. Special Condition 16.N: The permittee shall not haul more than 300 tons per day of waste associated with the artificial soils project on the offsite haul road (AS-01AA).
15. Special Condition 16.O: The permittee shall not unload more than 100 tons per day each of ash, biosolids, or carbon source waste (including yard waste, sawdust, or ground wood) associated with the artificial soils project (AS-02A, AS-02B, and AS-02D).
16. Special Condition 16.P: The permittee shall not load more than the following listed amounts of cement on a daily basis:
    a) River Cement Silos (SH-07) – 15,000 tons of cement per day,
    b) Barge Loading (SH-08 and SH-09) – 50,000 tons of cement per day combined, and
    c) Bulk Truck Loading (SH-04,5) – 4,500 tons of cement per day.
17. Special Condition 16.Q: The permittee shall not haul more than 1,200 tons per day of clay on the haul road from stockhouse #5 to the primary crusher (RM-70).

18. Special Condition 16.R: The permittee shall not haul more than 1,000 tons per day of limestone fines into the plant (RM-72).
19. Special Condition 16.S: The permittee shall not haul more than 325 tons per day of natural gypsum into the plant (CG-26A and CG-26B).
20. Special Condition 16.T: The permittee shall not haul more than 400 tons per day of synthetic gypsum blend material from the synthetic gypsum storage building to the clinker reclaim hopper (SG-11A).
21. Special Condition 16.U: The permittee shall not haul more than 250 tons per day of Cement Kiln Dust (CKD) offsite (SF-33).

Monitoring/Recordkeeping:

1. Special Condition 16.V: The permittee shall maintain an accurate record of raw materials handling, limestone handling, fuel handling, gypsum handling, cement kiln dust handling, waste handling associated with the artificial soils project and cement load out. The permittee shall record the daily total of the materials processed using Attachment H or an equivalent form generated by the permittee in order to verify compliance with the processing/handling limitations.
2. Special Condition 21: The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.
3. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reporting:

1. Special Condition 22: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of a limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 021
NSPS F – PM and Opacity
10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart F – Standards of Performance for Portland Cement Plants

Emission Unit	Description
CM-15_1	Clinker Storage Pile - Load-In/Out
CM-15_2	Clinker Storage Pile - Vehicle Activity
CM-15_3	Clinker Storage Pile - Wind Erosion
CM-30_1	Storage Pile - Clinker In Cave - Load-In/Out
CM-30_2	Storage Pile - Clinker In Cave - Vehicle Activity
CM-30_3	Storage Pile - Clinker In Cave - Wind Erosion
KP-10	Alkali Bypass Baghouse - Vents To Main Stack
LM-02	Lime - Transfer To Bin
RM-03A	Loading Haul Trucks/Pile Forming Stacker - A1
RM-03B	Loading Haul Trucks/Pile Forming Stacker - Sims
RM-03C	Loading Haul Trucks/Pile Forming Stacker - Hi-Mag
RM-09	Old Primary Crusher
RM-51	Limestone Feeder/Grizzly - New Crusher
RM-51_1	New Crusher
RM-77	Limestone Storage Pile
RM-80	Bottom Ash Cave Storage Pile
RM-81	Iron Ore Cave Storage Pile
RM-82	Blend Storage Pile
TEMP-02_1	Storage Pile - Load-In/Out
TEMP-02_2	Storage Pile - Vehicle Activity
TEMP-02_3	Storage Pile - Wind Erosion

Standards:
On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not discharge into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit ten percent opacity, or greater. [§60.62(c)]

Test Methods and Procedures:
1. In conducting the performance tests required in §60.8, the permittee shall use reference methods and procedures and the test methods in NSPS Appendix A or other methods and procedures as specified in §60.64, except as provided in §60.8(b). [§60.64(a)]
2. Use Method 9 and the procedures in §60.11 to determine opacity. [§60.64(b)(2)]
3. Any sources other than kilns (including alkali bypass and clinker cooler) that are subject to the ten percent opacity limit shall follow the appropriate monitoring procedures in §63.1350(f), (m)(1) through (4), (10) and (11), (o) and (p).
4. Reports shall be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). [§60.64(d)(4)]

Recordkeeping and Reporting:
1. The permittee shall maintain records of all Method 9 observations using Attachment J.

2. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.
3. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
4. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 022

Emission Units SF-02A, SF-02B, SF-03A – SF-03D, SF-60A, SF-60B, SF-62A, and SF-62B

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Emission Unit	Description
SF-02A and SF-02B	HWF Blend Tanks w/ Carbon Filter (6) – 25,000 gallons each
SF-03A and SF-03B	HWF Burn Tanks w/ Carbon Filter (2) – 75,000 gallons each
SF-03C and SF-03D	LHWDF Tanks – (1) 75,000 gallons and (1) 150,000 gallons
SF-60A and SF-60B	Supplemental Fuel Storage Tank - Railpad – 75,000 gallons
SF-62A and SF-62B	Supplemental Fuel Storage Tank – Railpad – 75,000 gallons

Standards:

1. The permittee shall equip each storage vessel with one of the following: [§60.112b(a)]
   a) A fixed roof in combination with an internal floating roof meeting the following specifications: [§60.112b(a)(1)]
      i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. [§60.112b(a)(1)(i)]
      ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: [§60.112b(a)(1)(ii)]
         (1) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank. [§60.112b(a)(1)(ii)(A)]
         (2) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous. [§60.112b(a)(1)(ii)(B)]

(3) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. [§60.112b(a)(1)(ii)(C)]

iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [§60.112b(a)(1)(iii)]

iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [§60.112b(a)(1)(iv)]

v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [§60.112b(a)(1)(v)]

vi) Rim space vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [§60.112b(a)(1)(vi)]

vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [§60.112b(a)(1)(vii)]

viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [§60.112b(a)(1)(viii)]

ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [§60.112b(a)(1)(ix)]

b) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof shall meet the following specifications: [§60.112b(a)(2)]

i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal. [§60.112b(a)(2)(i)]

(1) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall. [§60.112b(a)(2)(i)(A)]

(2) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4). [§60.112b(a)(2)(i)(B)]

ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents shall be set to open

when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents shall be gasketed. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. [§60.112b(a)(2)(ii)]

iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. [§60.112b(a)(2)(iii)]

c) A closed vent system and control device meeting the following specifications: [§60.112b(a)(3)]
   i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in NSPS VV, §60.485(b). [§60.112b(a)(3)(i)]
   ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of §60.18. [§60.112b(a)(3)(ii)]

d) A system equivalent to those described in §60.112b(a)(1), (2), or (3) as provided in §60.114b. [§60.112b(a)(4)]

Testing and Procedures:

The permittee shall refer to §60.113b for Testing and Procedures applicable to NSPS Kb.

Alternative Means of Emission Limitation:

1. If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement. [§60.114b(a)]
2. Any notice under §60.114b(a) will be published only after notice and an opportunity for a hearing. [§60.114b(b)]
3. Any person seeking permission under §60.114b shall submit to the Administrator a written application including: [§60.114b(c)]
   a) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure. [§60.114b(c)(1)]
   b) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence. [§60.114b(c)(2)]
4. The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b. [§60.114b(d)]

Monitoring:

1. The permittee shall keep copies of all records required by §60.116b, except for the record required by §60.116b(b), for at least five years. The record required by §60.116b(b) shall be kept for the life of the source. [§60.116b(a)]

2. The permittee shall keep readily accessible records showing the dimensions of each storage vessel and an analysis showing the capacity of each storage vessel. [§60.116b(b)]
3. Except as provided in §60.116b(f), the permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [§60.116b(c)]
4. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below. [§60.116b(e)]
   a) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [§60.116b(e)(1)]
   b) The vapor pressure: [§60.116b(e)(3)]
      i) May be obtained from standard reference texts, or [§60.116b(e)(3)(i)]
      ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or [§60.116b(e)(3)(ii)]
      iii) Measured by an appropriate method approved by the Administrator; or [§60.116b(e)(3)(iii)]
      iv) Calculated by an appropriate method approved by the Administrator. [§60.116b(e)(3)(iv)]
5. The permittee shall be subject to the following requirements: [§60.116b(f)]
   a) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in §60.116b(e). [§60.116b(f)(1)]
6. Each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in §65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of §60.116b(c). [§60.116b(g)]

Reporting and Recordkeeping:

1. The permittee shall keep records and furnish reports as required by §60.115b depending upon the control equipment installed to meet the requirements of §60.112b. The permittee shall keep copies of all reports and records required by §60.115b, except for the record required by §60.115b(c)(1), for at least five years. The record required by §60.115b(c)(1) shall be kept for the life of the control equipment. [§60.115b]
   a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the permittee shall meet the following requirements: [§60.115b(a)]
      i) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3). [§60.115b(a)(1)]
      ii) Keep a record of each inspection performed as required by §60.113b(a)(1), (2), (3), and (4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [§60.115b(a)(2)]
      iii) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of

the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [§60.115b(a)(3)]

iv) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §60.112b(a)(1) or §60.113b(a)(3) and list each repair made. [§60.115b(a)(4)]

b) After installing control equipment in accordance with §60.112b(a)(2) (external floating roof), the permittee shall meet the following requirements: [§60.115b(b)]

i) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (3), and (4). This report shall be an attachment to the notification required by §60.7(a)(3). [§60.115b(b)(1)]

ii) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains: [§60.115b(b)(2)]

(1) The date of measurement. [§60.115b(b)(2)(i)]
(2) The raw data obtained in the measurement. [§60.115b(b)(2)(ii)]
(3) The calculations described in §60.113b(b)(2) and (3). [§60.115b(b)(2)(iii)]

iii) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain: [§60.115b(b)(3)]

(1) The date of measurement. [§60.115b(b)(3)(i)]
(2) The raw data obtained in the measurement. [§60.115b(b)(3)(ii)]
(3) The calculations described in §60.113b(b)(2) and (3). [§60.115b(b)(3)(iii)]

iv) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report shall identify the vessel and contain the information specified in §60.115b(b)(2) and the date the vessel was emptied or the repairs made and date of repair. [§60.115b(b)(4)]

c) After installing control equipment in accordance with §60.112b(a)(3) (closed vent system and control device other than a flare), the permittee shall keep the following records: [§60.115b(c)]

i) A copy of the operating plan. [§60.115b(c)(1)]

ii) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2). [§60.115b(c)(2)]

d) After installing a closed vent system and flare to comply with §60.112b, the permittee shall meet the following requirements. [§60.115b(d)]

i) A report containing the measurements required by §60.18(f)(1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8. This report shall be submitted within six months of the initial start-up date. [§60.115b(d)(1)]

ii) Records shall be kept of all periods of operation during which the flare pilot flame is absent. [§60.115b(d)(2)]

iii) Semi-annual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator. [§60.115b(d)(3)]

2. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action,

report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.

4. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
5. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit

PERMIT CONDITION 023

Emission Units CG-01A, CG-09C, CG-17_1 – CG-17_3, and CG-21 – CG-25

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60, Subpart Y – Standards of Performance for Coal Preparation and Processing Plants

Emission Unit	Description
CG-01A	Barge Unloading (Coal/Coke)
CG-09C	Unloading At Coal/Coke Hopper
CG-17_1	Coal Storage Pile - Load-In/Out
CG-17_2	Coal Storage Pile - Vehicle Activity
CG-17_3	Coal Storage Pile - Wind Erosion
CG-21	Coal/Coke Conveyor Baghouse
CG-22	Coal/Coke Conveyor/Bin Baghouse
CG-23	Coal/Coke Mill - Process
CG-24	Fine Coal/Coke Mill Bin Vent

Standards:

On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater. [§60.254(a)]

Performance Tests and Compliance Demonstrations:

The permittee shall conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified within the Test Methods and Procedures section of this permit condition. [§60.255(a)]

Test Methods and Procedures:

1. The permittee shall determine compliance with the applicable opacity standards as follows: [§60.257(a)]
   a) Method 9 of NSPS Appendix A–4 and the procedures in §60.11 shall be used to determine opacity, with the following exceptions: [§60.257(a)(1)]
      i) The duration of the Method 9 of NSPS Appendix A–4 performance test shall be one hour (ten six-minute averages). [§60.257(a)(1)(i)]
      ii) If, during the initial 30 minutes of the observation of a Method 9 of NSPS Appendix A–4 performance test, all of the six-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from one hour to 30 minutes. [§60.257(a)(1)(ii)]

b) To determine opacity for fugitive coal dust emissions sources, the following additional requirements shall be used: [§60.257(a)(2)]
   i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 ft), and the sun shall be oriented in the 140-degree sector of the back. [§60.257(a)(2)(i)]
   ii) The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction. [§60.257(a)(2)(ii)]
   iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission. [§60.257(a)(2)(iii)]

c) A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met. [§60.257(a)(3)]
   i) No more than three emissions points may be read concurrently. [§60.257(a)(3)(i)]
   ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. [§60.257(a)(3)(ii)]
   iii) If an opacity reading for any one of the three emissions points is within five percent opacity from the applicable standard (excluding readings of zero opacity), then the observer shall stop taking readings for the other two points and continue reading just that single point. [§60.257(a)(3)(iii)]

Reporting and Recordkeeping:

1. For the purpose of reports required under §60.7(c), the permittee shall report semi-annually periods of excess emissions as follow: [§60.258(b)]
   a) All six-minute average opacities that exceed the applicable opacity standard. [§60.258(b)(3)]
2. After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with NSPS Y, the permittee shall submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (*i.e.,* Method 9 of NSPS Appendix A–4 opacity performance tests) the permittee shall mail a summary copy to EPA; Energy Strategies Group; 109 TW Alexander DR; mail code: D243–01; RTP, NC 27711. [§60.258(d)]
3. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
4. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.
5. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
6. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit

PERMIT CONDITION 024

Emission Units MS-07

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Emission Unit	Description	Engine Rating (HP)	Engine Displacement (L/cylinder)
MS-07	Emergency Generator	1214	2.2525

Manufacturer Standards:

1. Stationary CI internal combustion engine manufacturers shall certify their emergency stationary CI ICE to meet the following emission standards: [§60.4202(a)]
   a) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in §89.112 and §89.113 for all pollutants beginning in model year 2007. [§60.4202(a)(2)]
2. Engines manufactured by stationary CI internal combustion engine manufacturers shall meet the emission standards as required in §60.4202 during the useful life of the engines. [§60.4203]
3. Stationary CI internal combustion engine manufacturers shall certify their stationary CI ICE to the emission standards specified in §60.4202(a) using the certification procedures required in 40 CFR Part 89, Subpart B, or 40 CFR Part 1039, Subpart C, as applicable, and shall test their engines as specified. [§60.4210(a)]
4. Stationary CI internal combustion engine manufacturers shall meet the requirements of §1039.120, §1039.125, §1039.130, §1039.135, and 40 CFR Part 1068 for engines that are certified to the emission standards in 40 CFR Part 1039. Stationary CI internal combustion engine manufacturers shall meet the corresponding provisions of 40 CFR Part 89 or 40 CFR Part 94 for engines that would be covered if they were nonroad engines. Labels on such engines shall refer to stationary engines, rather than or in addition to nonroad. Stationary CI internal combustion engine manufacturers shall label their engines according to the following paragraph: [§60.4210(c)]
   a) Stationary CI internal combustion engines manufactured after January 1, 2007, shall be labeled according to following paragraphs: [§60.4210(c)(3)]
      i) Stationary CI internal combustion engines that meet the requirements of NSPS IIII and the corresponding requirements for nonroad engines of the same model year and HP shall be labeled according to the provisions in 40 CFR Parts 89, 94, or 1039, as appropriate. [§60.4210(c)(3)(i)]
      ii) Stationary CI internal combustion engines that meet the requirements of NSPS IIII, but are not certified to the standards applicable to nonroad engines of the same model year and HP must be labeled according to the provisions in 40 CFR Parts 89, 94, or 1039, as appropriate, but the words “stationary” shall be included instead of “nonroad” on the label. In addition, such engines shall be labeled according to §1039.20. [§60.4210(c)(3)(ii)]
      iii) Stationary CI internal combustion engines that do not meet the requirements of NSPS IIII shall be labeled according to §1068.230 and shall be exported under the provisions of §1068.230. [§60.4210(c)(3)(iii)]
5. An engine manufacturer certifying an engine family or families to standards under NSPS IIII that are identical to standards applicable under 40 CFR Parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines. [§60.4210(d)]

6. Manufacturers of engine families discussed in §60.4210(d) may meet the labeling requirements referred to in §60.4210(c) for stationary CI ICE by either adding a separate label containing the information required in §60.4210(c) or by adding the words “and stationary” after the word “nonroad”, as appropriate, to the label. [§60.4210(e)]
7. Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of NSPS IIII. [§60.4210(h)]
8. The replacement engine provisions of §89.1003(b)(7), §94.1103(b)(3), §94.1103(b)(4) and §1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old. [§60.4210(i)]

Emission Standards:

The permittee shall comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [§60.4205(b)]

Operational Standards:

1. The permittee shall operate and maintain their stationary CI ICE that achieves the emission standards as required in §60.4205 according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine. [§60.4206]
2. Beginning October 1, 2010, the permittee shall use diesel fuel that meets the requirements of §80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]
3. The permittee may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of §60.4207(b) beyond the date required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to six months. If additional time is needed, the permittee is required to submit a new petition to the Administrator. [§60.4207(c)]
4. The permittee shall install a non-resettable hour meter prior to startup of the engine. [§60.4209(a)]
5. The permittee shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply. [§60.4211(a)]
6. The permittee shall comply with this regulation by purchasing an engine certified to the emission standards in §60.4205(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. [§60.4211(c)]
7. The permittee shall operate the emergency stationary ICE according to the requirements in §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE

under NSPS IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under NSPS IIII and shall meet all requirements for non-emergency engines. [§60.4211(f)]

a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]

b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4211(f)(2)]
   i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
   ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§60.4211(f)(2)(ii)]
   iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency. [§60.4211(f)(2)(iii)]

c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
   i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4211(f)(3)(i)]
      (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4211(f)(3)(i)(A)]
      (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]
      (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]

(4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(D)]
(5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(E)]

Testing:

1. All performance tests conducted to demonstrate compliance with NSPS IIII shall be performed according to the following paragraphs: [§60.4212]
   a) The performance test shall be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. [§60.4212(a)]
   b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR Part 1039 shall not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in §1039.101(e) and §1039.102(g)(1), except as specified in §1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR Part 1039. [§60.4212(b)]
   c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in §89.112 or §94.8, as applicable, shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §89.112 or §94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = 1.25 \times \text{STD} \quad \text{Equation 1}$$

   Where:
   STD = The standard specified for that pollutant in §89.112 or §94.8, as applicable. [§60.4212(c)]

Recordkeeping and Reporting:

1. The permittee shall maintain the manufacturer's certification demonstrating the manufacturer's compliance with the manufacturer standards for the life of the engine.
2. The permittee shall maintain fuel purchase receipts demonstrating that the purchased fuel met the requirements for nonroad diesel fuel.
3. The permittee shall maintain results of any testing performed to demonstrate compliance with NSPS IIII.
4. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
5. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.
6. If the emergency stationary CI ICE operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), the permittee shall submit an annual report according to the following requirements: [§60.4214(d)]
   a) The report shall contain the following information: [§60.4214(d)(1)]
      i) Company name and address where the engine is located. [§60.4214(d)(1)(i)]
      ii) Date of the report and beginning and ending dates of the reporting period. [§60.4214(d)(1)(ii)]

iii) Engine site rating and model year. [§60.4214(d)(1)(iii)]
iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [§60.4214(d)(1)(iv)]
v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii). [§60.4214(d)(1)(v)]
vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii). [§60.4214(d)(1)(vi)]
vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [§60.4214(d)(1)(vii)]

b) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [§60.4214(d)(2)]
c) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to NSPS IIII is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4. [§60.4214(d)(3)]

7. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 025

Emission Units SF-02A, SF-02B, SF-03A – SF-03D, SF-60A, SF-60B, SF-62A, and SF-62B

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart XX – National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations

Emission Unit	Description
SF-02A and SF-02B	HWF Blend Tanks w/ Carbon Filter (6) – 25,000 gallons each
SF-03A and SF-03B	HWF Burn Tanks w/ Carbon Filter (2) – 75,000 gallons each
SF-03C and SF-03D	LHWDF Tanks – (1) 75,000 gallons and (1) 150,000 gallons
SF-60A and SF-60B	Supplemental Fuel Storage Tank - Railpad – 75,000 gallons
SF-62A and SF-62 B	Supplemental Fuel Storage Tank - Railpad – 75,000 gallons

The installation has submitted a written certification per the requirements of §63.1096(b) that they shall manage and treat any waste stream received from a source subject to MACT XX according to the provisions of MACT XX.

Certification:

1. By providing the written certification to the Administrator, the permittee accepts responsibility for compliance with the regulatory provisions in MACT XX with respect to any shipment of waste covered by the written certification. Failure to abide by any of those provisions with respect to such

shipments may result in enforcement action by EPA against the permittee in accordance with the enforcement provisions applicable to violations of those provisions by the permittee. [§63.1096(c)]

2. The permittee may revoke the written certification by sending a written statement to the Administrator and subject source producing the waste stream. The notice of revocation shall provide at least 90 days' notice that the permittee is rescinding acceptance of responsibility for compliance with the regulatory provisions of MACT XX. Upon expiration of the notice period, the permittee shall not accept waste from the subject source. Written certifications and revocation statements to the Administrator from the transferees of waste shall be signed by the permittee's responsible official, provide the name and address of the permittee, and be sent to the appropriate EPA Regional Office at the addresses listed in §63.13. Such written certifications are not transferable by the permittee to other off-site waste treatment operators. [§63.1096(d)]

Waste Stream Requirements:

1. The permittee shall comply with the requirements in §63.1095(a) for continuous butadiene waste streams and §63.1095(b) for benzene waste streams. [§63.1095]
   a) *Continuous butadiene waste streams.* Manage and treat continuous butadiene waste streams that contain greater than or equal to ten ppmw 1,3-butadiene and have a flow rate greater than or equal to 0.02 L/min, according to either of the following paragraphs: [§63.1095(a)]
      i) Route the continuous butadiene stream to a treatment process or wastewater treatment system used to treat benzene waste streams that complies with the standards specified in §61.348. [§63.1095(a)(1)]
         (1) Determine the butadiene concentration of the waste stream according to §61.355(c)(1) through (3), except substitute "1,3-butadiene" for each occurrence of "benzene." The permittee may validate 40 CFR Part 136 methods for 1,3-butadiene according to the procedures in NSPS Appendix D. The permittee does not need to determine the butadiene concentration of a waste stream if the permittee designates that the stream shall be controlled. [§63.1095(a)(1)(i)]
         (2) Comply with §61.342(c)(1)(ii) and (iii) for each waste management unit that receives or manages the waste stream prior to and during treatment or recycling of the waste stream. [§63.1095(a)(1)(ii)]
         (3) Comply with the recordkeeping requirements in §61.356(b), (b)(1) and (b)(2), except substitute "1,3-butadiene" for each occurrence of "benzene" and "continuous butadiene waste stream" for each occurrence of "waste stream." [§63.1095(a)(1)(iii)]
         (4) Comply with the reporting requirements in §61.357(a), (a)(2), (a)(3), (a)(3)(iii) through (v), and (d)(1) and (2), except substitute "1,3-butadiene" for each occurrence of "benzene" and "continuous butadiene waste stream" for each occurrence of "waste stream." [§63.1095(a)(1)(iv)]
         (5) Include only the information in §61.357(a)(2) and (a)(3)(iii) through (v) in the report required in §61.357(a) and (d)(2). [§63.1095(a)(1)(v)]
   b) *Waste streams that contain benzene.* For waste streams that contain benzene, the permittee shall comply with the requirements of NESHAP FF, except as specified in Table 2 to MACT XX. The permittee shall manage and treat waste streams that contain benzene as specified in the following paragraph: [§63.1095(b)]
      i) The permittee shall manage and treat waste streams according to any of the options in §61.342(c)(1) through (e) or transfer waste off-site. [§63.1095(b)(2)]

Table 2 to MACT XX— *Requirements of NESHAP FF, Not Included in the Requirements for MACT XX and Alternate Requirements*

Do not comply with:	Instead, comply with:
§61.340	§63.1093
§61.342(f)	§63.1096
The requirement to submit the information required in §61.357(a) to the Administrator within 90 days after January 7, 1993	The requirement to submit the information required in §61.357(a) as part of the Initial Notification required in §63.1110(c)
The requirement in §61.357(d) to submit the information in §61.357(d)(1) and (2) if the TAB quantity from the facility is equal to or greater than 10 Mg/yr	The requirement to submit the information in §61.357(d)(1) and (2) as part of the Notification of Compliance Status required in §63.1110(d)

Transferring Off-site:

1. If the permittee elects to transfer waste off-site, the permittee shall comply with the following requirements: [§63.1096]
   a) Include a notice with the shipment or transport of each waste stream. The notice shall state that the waste stream contains organic HAP that shall be treated in accordance with the provisions of MACT XX. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment. [§63.1096(a)]
   b) The permittee shall not transfer the waste stream unless the transferee has submitted to the Administrator a written certification that the transferee will manage and treat any waste stream received from a source subject to the requirements of MACT XX in accordance with the requirements of MACT XX. [§63.1096(b)]
   c) The certifying entity may revoke the written certification by sending a written statement to the Administrator and the permittee. The notice of revocation must provide at least 90 days' notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions of MACT XX. Upon expiration of the notice period, the permittee shall not transfer the waste stream to that off-site treatment operation. Written certifications and revocation statements to the Administrator from the transferees of waste shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in §63.13. Such written certifications are not transferable by the treater to other off-site waste treatment operators. [§63.1096(d)]

Initial Notification:

1. The permittee shall notify the Administrator of the applicability of MACT XX by submitting an Initial Notification. The initial notification shall be postmarked within one year after the permittee becomes subject to MACT XX. The notice shall include the following information, as applicable: [§63.1110(c) and §63.1110(c)(1)]
   a) Identification of the storage vessels subject to MACT XX. [§63.1110(c)(2)]
   b) Identification of the process vents subject to MACT XX. [§63.1110(c)(3)]
   c) Identification of the transfer racks subject to MACT XX. [§63.1110(c)(4)]
   d) For equipment leaks, identification of the process units subject to MACT XX. [§63.1110(c)(5)]
   e) Identification of other equipment or emission points subject to MACT XX. [§63.1110(c)(6)]
   f) As an alternative to the requirements above, process units can be identified instead of individual pieces of equipment. For this alternative, the kind of emission point in the process unit that will comply shall also be identified. [§63.1110(c)(7)]

Notification of Compliance Status:

1. The permittee shall submit a Notification of Compliance Status for each affected source subject to MACT XX containing the following information: [§63.1110(d)(1)]
   a) The Notification of Compliance Status shall include the information specified in MACT XX. Alternatively, this information can be submitted as part of a Title V permit application or amendment. [§63.1110(d)(1)(i)]
   b) The Notification of Compliance Status shall include a statement from the permittee identifying which subpart (NESHAP FF or MACT XX) the permittee has elected to comply with, where given a choice, as provided for in §63.1100(g). [§63.1110(d)(1)(ii)]
2. The permittee shall submit the Notification of Compliance Status for each affected source 240 days after the compliance date specified for the affected source under MACT XX, or 60 days after completion of the initial performance test or initial compliance assessment, whichever is earlier. Notification of Compliance Status reports may be combined for multiple affected sources as long as the due date requirements for all sources covered in the combined report are met. [§63.1110(d)(2)]

PERMIT CONDITION 026

Emission Point: Main Stack

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart EEE – National Emission Standards for HAPs from Hazardous Waste Combustors

Emission Unit	Description
CG-23	Coal/Coke Mill - Process
CG-25	Coal/Coke Mill Preheater
KP-08	Main Stack - Cement Kiln
KP-10	Alkali Bypass Baghouse - Vents To Main Stack

Operating Parameters:

The permittee shall comply with the following operating parameter limits as established within the installation's March 2010 Notice of Compliance and Comprehensive Performance Test Report until new operating parameter limits are established and approved within subsequent performance tests:

Operating Parameter Limit	Operating Mode	
	Raw Mill Off	Raw Mill On
Maximum Main Baghouse Inlet Temperature (^oF)	352	219
Maximum Bypass Baghouse Inlet Temperature (^oF)	323	339
Maximum Coal Mill Baghouse Inlet Temperature (^oF)	220	
Minimum Combustion Chamber Exit Temperature (^oF)	1,566	
Maximum Production Rate (Kiln Feed Rate) (ton/hr)	226[1]	
Maximum Total HWDF Feed Rate (lb/min)	407	408
Maximum Pumpable HWDF Feed Rate (lb/min)	376	380
Maximum Calciner THC (ppm)	10	
Maximum Calciner Differential Pressure (in. H_2O)	0.0	
Maximum Hg MTEC (µg/dscm at seven percent O_2)	120	
Maximum Hg HWDF Feed Concentration (ppm)	1.9	
Maximum Total SVM Feed Rate (lb/hr)	2,623	4,158
Maximum Thermal SVM Feed Rate (lb/MMBtu)	1.32	2.08
Maximum Total LVM Feed Rate (lb/hr)	293	305
Maximum Pumpable LVM Feed Rate (lb/hr)	236	214
Maximum Thermal LVM Feed Rate (lb/MMBtu)	0.150	0.155
Maximum Total Chlorine/Chloride Feed Rate (lb/hr)	683	673

[1]The installation's March 2010 NOC and CPT report established a Kiln Feed Rate OPL of 212 tph. Testing was conducted in March 2011 to establish a new Kiln Feed Rate OPL of 226 tph. The test report was reviewed and approved in a letter dated July 12, 2011.

Standards:

1. *Emission and hazardous waste feed limits for new sources* . The permittee shall not discharge or cause combustion gases to be emitted into the atmosphere or feed hazardous waste that contain: [§63.1220(b)]
   a) For dioxins and furans, either: [§63.1220(b)(1)]
      i) Emissions in excess of 0.20 ng TEQ/dscm corrected to seven percent O_2; or [§63.1220(b)(1)(i)]
      ii) Emissions in excess of 0.40 ng TEQ/dscm corrected to seven percent O_2 provided that the combustion gas temperature at the inlet to the initial dry PM control device is 400°F or lower based on the average of the test run average temperatures; [§63.1220(b)(1)(ii)]
   b) For Hg, both: [§63.1220(b)(2)]
      i) An average as-fired concentration of Hg in all hazardous waste feed streams in excess of 1.9 ppmw; and [§63.1220(b)(2)(i)]
      ii) Either: [§63.1220(b)(2)(ii)]
         (1) Emissions in excess of 120 µg/dscm, corrected to seven percent O_2, or [§63.1220(b)(2)(ii)(A)]
         (2) A hazardous waste feed maximum theoretical emission concentration (MTEC) in excess of 120 µg/dscm; [§63.1220(b)(2)(ii)(B)]
   c) For cadmium and lead, both: [§63.1220(b)(3)]
      i) Emissions in excess of 6.2×10^{-5} lb combined emissions of cadmium and lead attributable to the hazardous waste per MMBtu heat input from the hazardous waste; and [§63.1220(b)(3)(i)]
      ii) Emissions in excess of 180 µgm/dscm, combined emissions, corrected to seven percent O_2; [§63.1220(b)(3)(ii)]
   d) For arsenic, beryllium, and chromium, both: [§63.1220(b)(4)]

i) Emissions in excess of 1.5×10^{-5} lb combined emissions of arsenic, beryllium, and chromium attributable to the hazardous waste per MMBtu heat input from the hazardous waste; and [§63.1220(b)(4)(i)]
ii) Emissions in excess of 54 µgm/dscm, combined emissions, corrected to seven percent O_2; [§63.1220(b)(4)(ii)]

e) *CO and hydrocarbons.* [§63.1220(b)(5)]
i) For kilns equipped with a by-pass duct or midkiln gas sampling system, CO and hydrocarbons emissions are limited in both the bypass duct or midkiln gas sampling system and the main stack as follows: [§63.1220(b)(5)(i)]
(1) Emissions in the by-pass or midkiln gas sampling system are limited to either: [§63.1220(b)(5)(i)(A)]
(a) CO in excess of 100 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to seven percent O_2. If the permittee elects to comply with this CO standard rather than the hydrocarbon standard under §63.1220(b)(5)(i)(A)(2), the permittee shall also document that, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons do not exceed ten ppmv during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane; or [§63.1220(b)(5)(i)(A)(1)]
(b) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of ten ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane; and [§63.1220(b)(5)(i)(A)(2)]

f) HCl and chlorine gas in excess of 86 ppmv, combined emissions, expressed as a chloride (Cl(-)) equivalent, dry basis and corrected to seven percent O_2; and [§63.1220(b)(6)]
g) For PM, both: [§63.1220(b)(7)]
i) Emissions in excess of 0.0069 gr/dscf corrected to seven percent O_2; and [§63.1220(b)(7)(i)]
ii) Opacity greater than 20 percent, unless the source is equipped with a BLDS under §63.1206(c)(8). [§63.1220(b)(7)(ii)]

2. *Destruction and removal efficiency (DRE) standard* — [§63.1220(c)]
a) *99.99 percent DRE.* Except as provided in §63.1220(c)(2), the permittee shall achieve a destruction and removal efficiency (DRE) of 99.99 percent for each principle organic hazardous constituent (POHC) designated under §63.1220(c)(3). The permittee shall calculate DRE for each POHC from the following equation:

$$DRE = \left[1 - \frac{W_{out}}{W_{in}}\right] \times 100\%$$

Where:
W_{in}= mass feedrate of one POHC in a waste feed stream; and
W_{out}= mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere. [§63.1220(c)(1)]

b) *99.9999 percent DRE.* If the permittee burns the dioxin-listed hazardous wastes F020, F021, F022, F023, F026, or F027 (see §261.31), the permittee shall achieve a DRE of 99.9999 percent for each POHC designated under §63.1220(c)(3). The permittee shall demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-*p*-dioxins and dibenzofurans. The permittee shall use the equation in §63.1220(c)(1) to calculate DRE for each POHC. In addition, the permittee shall notify the

Administrator of the permittee's intent to incinerate hazardous wastes F020, F021, F022, F023, F026, or F027. [§63.1220(c)(2)]

c) *Principal organic hazardous constituent (POHC).* [§63.1220(c)(3)]
   i) The permittee shall treat each POHC in the waste feed specified under §63.1220(c)(3)(ii) to the extent required by §63.1220(c)(1) and (2). [§63.1220(c)(3)(i)]
   ii) The permittee shall specify one or more POHCs that are representative of the most difficult to destroy organic compounds in the hazardous waste feed stream. The permittee shall base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information. [§63.1220(c)(3)(ii)]

3. *Cement kilns with in-line kiln raw mills* — [§63.1220(d)]
   a) *General.* [§63.1220(d)(1)]
      i) The permittee shall conduct performance testing when the raw mill is on-line and when the mill is off-line to demonstrate compliance with the emission standards, and the permittee shall establish separate operating parameter limits under §63.1209 for each mode of operation, except as provided by §63.1220(d)(1)(v). [§63.1220(d)(1)(i)]
      ii) The permittee shall document in the operating record each time the permittee changes from one mode of operation to the alternate mode and begins complying with the operating parameter limits for that alternate mode of operation. [§63.1220(d)(1)(ii)]
      iii) The permittee shall calculate rolling averages for operating parameter limits as provided by §63.1209(q)(2). [§63.1220(d)(1)(iii)]
      iv) In lieu of conducting a performance test to demonstrate compliance with the dioxin/furan emission standards for the mode of operation when the raw mill is on-line, the permittee may specify in the performance test work plan and Notification of Compliance the same operating parameter limits required under §63.1209(k) for the mode of operation when the raw mill is on-line as the permittee established during performance testing for the mode of operation when the raw mill is off-line. [§63.1220(d)(1)(v)]
   b) *Emissions averaging.* The permittee may comply with the Hg, semi volatile metal, low volatile metal, and hydrogen chloride/chlorine gas emission standards on a time-weighted average basis under the following procedures: [§63.1220(d)(2)]
      i) *Averaging methodology.* The permittee shall calculate the time-weighted average emission concentration with the following equation:

$$C_{total} = \left\{ Cmill\text{-}off \times \left(\frac{Tmill\text{-}off}{T\,mill\text{-}off + Tmill\text{-}on} \right) \right\} + \left\{ Cmill\text{-}on \times \left(\frac{Tmill\text{-}on}{Tmill\text{-}off + Tmill\text{-}on} \right) \right\}$$

      Where:
      C_{total}= time-weighted average concentration of a regulated constituent considering both raw mill on time and off time;
      Cmill-off= average performance test concentration of regulated constituent with the raw mill off-line;
      Cmill-on= average performance test concentration of regulated constituent with the raw mill on-line;
      Tmill-off= time when kiln gases are not routed through the raw mill; and
      Tmill-on= time when kiln gases are routed through the raw mill. [§63.1220(d)(2)(i)]
      ii) *Compliance.* [§63.1220(d)(2)(ii)]

(1) If the permittee uses this emission averaging provision, the permittee shall document in the operating record compliance with the emission standards on an annual basis by using the equation provided by §63.1220(d)(2). [§63.1220(d)(2)(ii)(A)]
(2) Compliance is based on one-year block averages beginning on the day the permittee submits the initial notification of compliance. [§63.1220(d)(2)(ii)(B)]

iii) *Notification.* [§63.1220(d)(2)(iii)]
(1) If the permittee elects to document compliance with one or more emission standards using this emission averaging provision, the permittee shall notify the Administrator in the initial comprehensive performance test plan submitted under §63.1207(e). [§63.1220(d)(2)(iii)(A)]
(2) The permittee shall include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. [§63.1220(d)(2)(iii)(B)]
(3) The permittee shall document in the notification of compliance submitted under §63.1207(j) that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time. [§63.1220(d)(2)(iii)(C)]

4. *Significant figures*. The emission limits provided by §63.1220(b) are presented with two significant figures. Although the permittee shall perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. [§63.1220(f)]
5. When complying with the PM requirements of §63.1220(b)(7), the permittee is exempt from the New Source Performance Standard for PM and opacity under §60.60. [§63.1220(h)]

Compliance:

1. *Compliance with standards* — [§63.1206(b)]
   a) *Applicability*. The emission standards and operating requirements set forth in MACT EEE apply at all times except: [§63.1206(b)(1)]
      i) During periods of startup, shutdown, and malfunction; and[§63.1206(b)(1)(i)]
      ii) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time) and the permittee has documented in the operating record that the permittee is complying with all otherwise applicable requirements and standards promulgated under authority of §112 (e.g., MACT LLL) or §129 of the Clean Air Act in lieu of the emission standards under §63.1220; the monitoring and compliance standards of §63.1206 and §63.1207 through §63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and recordkeeping requirements of §63.1210 and §63.1211. [§63.1206(b)(1)(ii)]
   b) *Methods for determining compliance.* The Administrator will determine compliance with the emission standards of MACT EEE as provided by §63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions. [§63.1206(b)(2)]
   c) *Finding of compliance.* The Administrator will make a finding concerning compliance with the emission standards and other requirements of MACT EEE as provided by §63.6(f)(3). [§63.1206(b)(3)]

d) *Extension of compliance with emission standards.* The Administrator may grant an extension of compliance with the emission standards of MACT EEE as provided by §63.6(i). [§63.1206(b)(4)]

e) *Changes in design, operation, or maintenance* — [§63.1206(b)(5)]

i) *Changes that may adversely affect compliance.* If the permittee plans to change (as defined in §63.1206(b)(5)(iii)) the design, operation, or maintenance practices of the source in a manner that may adversely affect compliance with any emission standard that is not monitored with a CEMS: [§63.1206(b)(5)(i)]

(1) *Notification.* The permittee shall notify the Administrator at least 60 days prior to the change, unless the permittee documents circumstances that dictate that such prior notice is not reasonably feasible. The notification shall include: [§63.1206(b)(5)(i)(A)]

(a) A description of the changes and which emission standards may be affected; and [§63.1206(b)(5)(i)(A)(1)]

(b) A comprehensive performance test schedule and test plan under the requirements of §63.1207(f) that shall document compliance with the affected emission standard(s); [§63.1206(b)(5)(i)(A)(2)]

(2) *Performance test.* The permittee shall conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d); and [§63.1206(b)(5)(i)(B)]

(3) *Restriction on waste burning.* [§63.1206(b)(5)(i)(C)]

(a) Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, the permittee shall not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for the purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i) and (ii). [§63.1206(b)(5)(i)(C)(1)]

(b) The permittee may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The permittee shall specify operating requirements, including limits on operating parameters, which the permittee determines shall ensure compliance with the emission standards of MACT EEE based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. [§63.1206(b)(5)(i)(C)(2)]

ii) *Changes that will not affect compliance.* If the permittee determines that a change will not adversely affect compliance with the emission standards or operating requirements, the permittee shall document the change in the operating record upon making such change. The permittee shall revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes. [§63.1206(b)(5)(ii)]

iii) *Definition of "change."* For purposes of §63.1206(b)(5), "change" means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan. [§63.1206(b)(5)(iii)]

f) *Compliance with the CO and hydrocarbon emission standards.* This paragraph applies to sources that elect to comply with the CO and hydrocarbon emissions standards of MACT EEE by documenting continuous compliance with the CO standard using a CEMS and documenting

compliance with the hydrocarbon standard during the destruction and removal efficiency (DRE) performance test or its equivalent. [§63.1206(b)(6)]

i) If a DRE test performed within the initial comprehensive performance test is acceptable as documentation of compliance with the DRE standard, the permittee may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard. [§63.1206(b)(6)(i)]

ii) If during this acceptable DRE test the permittee did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, the permittee shall either: [§63.1206(b)(6)(ii)]

(1) Perform, as part of the performance test, an "equivalent DRE test" to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which the permittee operates the combustor as close as reasonably possible to the operating parameter limits that the permittee established based on the initial DRE test. The permittee shall use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or [§63.1206(b)(6)(ii)(A)]

(2) Perform a DRE test as part of the performance test. [§63.1206(b)(6)(ii)(B)]

g) *Compliance with the DRE standard.* [§63.1206(b)(7)]

i) Except as provided in §63.1206(b)(7)(ii): [§63.1206(b)(7)(i)]

(1) The permittee shall document compliance with the Destruction and Removal Efficiency (DRE) standard under MACT EEE only once provided that the permittee does not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard. [§63.1206(b)(7)(i)(A)]

(2) The permittee may use any DRE test data that documents that the source achieves the required level of DRE provided: [§63.1206(b)(7)(i)(B)]

(a) The permittee has not modified the design or operation of the source in a manner that could affect the ability of the source to achieve the DRE standard since the DRE test was performed; and, [§63.1206(b)(7)(i)(B)(1)]

(b) The DRE test data meet quality assurance objectives determined on a site-specific basis. [§63.1206(b)(7)(i)(B)(2)]

ii) *Sources that feed hazardous waste at locations other than the normal flame zone.* [§63.1206(b)(7)(ii)]

(1) Except as provided by §63.1206(b)(7)(ii)(B), if the permittee feeds hazardous waste at a location in the combustion system other than the normal flame zone, then the permittee shall demonstrate compliance with the DRE standard during each comprehensive performance test; [§63.1206(b)(7)(ii)(A)]

(a) A cement kiln that feeds hazardous waste at a location other than the normal flame zone need only demonstrate compliance with the DRE standard during three consecutive comprehensive performance tests provided that: [§63.1206(b)(7)(ii)(B)(1)]

(i) All three tests achieve the DRE standard in MACT EEE; and [§63.1206(b)(7)(ii)(B)(1)(i)]

(ii) The design, operation, and maintenance features of each of the three tests are similar; [§63.1206(b)(7)(ii)(B)(1)(ii)]

(iii) The data in lieu restriction of the initial comprehensive performance test does not apply when complying with the provisions of §63.1206(b)(7)(ii)(B); [§63.1206(b)(7)(ii)(B)(1)(iii)]

(b) If at any time the permittee change the design, operation, and maintenance features in a manner that could reasonably be expected to affect the source's ability to meet the DRE standard, then the permittee shall comply with the requirements of §63.1206(b)(7)(ii)(A). [§63.1206(b)(7)(ii)(B)(2)]

h) *Applicability of PM and opacity standards during PM CEMS correlation tests.* [§63.1206(b)(8)]

i) Any PM and opacity standards of 40 CFR Parts 60, 61, 63, 264, 265, and 266 applicable to a hazardous waste combustor do not apply while the permittee conducts PM CEMS correlation tests (i.e., correlation with manual stack methods) under the conditions of §63.1206(b)(8)(iii) through (vii). [§63.1206(b)(8)(i)]

ii) Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any PM and opacity standards of 40 CFR Parts 60, 61, 63, 264, 265, and 266 do not apply while the permittee conducts PM CEMS correlation tests under the conditions of §63.1206(b)(8)(iii) through (vii). [§63.1206(b)(8)(ii)]

iii) For the provisions of §63.1206 to apply, the permittee shall: [§63.1206(b)(8)(iii)]

(1) Develop a PM CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §63.1207(e) and §63.1207(f): [§63.1206(b)(8)(iii)(A)]

(a) Number of test conditions and number of runs for each test condition; [§63.1206(b)(8)(iii)(A)(1)]

(b) Target PM emission level for each test condition; [§63.1206(b)(8)(iii)(A)(2)]

(c) How the permittee plans to modify operations to attain the desired PM emission levels; and [§63.1206(b)(8)(iii)(A)(3)]

(d) Anticipated normal PM emission levels; and [§63.1206(b)(8)(iii)(A)(4)]

(2) Submit the test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted. [§63.1206(b)(8)(iii)(B)]

iv) The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information. [§63.1206(b)(8)(iv)]

v) The PM and opacity standards and associated operating limits and conditions shall not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator. [§63.1206(b)(8)(v)]

vi) The stack sampling team shall be on-site and prepared to perform correlation testing no later than 24 hours after the permittee modifies operations to attain the desired PM emissions concentrations, unless the permittee documents in the correlation test plan that a longer period of conditioning is appropriate. [§63.1206(b)(8)(vi)]

vii) The permittee shall return to operating conditions indicative of compliance with the applicable PM and opacity standards as soon as possible after correlation testing is completed. [§63.1206(b)(8)(vii)]

i) *Alternative standards for new hazardous waste burning cement kilns using MACT.* [§63.1206(b)(10)]
   i) The permittee may petition the Administrator to request alternative standards to the Hg or HCl/chlorine gas emission standards of MACT EEE, to the semi volatile metals emission standard under §63.1220(b)(3)(ii), or to the low volatile metals emissions standard under §63.1220(b)(4)(ii) if: [§63.1206(b)(10)(i)]
      (1) The permittee cannot achieve one or more of these standards while using MACT because of raw material contributions to emissions of Hg, semi volatile metals, low volatile metals, or HCl/chlorine gas; or [§63.1206(b)(10)(i)(A)]
      (2) The permittee determines that Hg is not present at detectable levels in the raw material. [§63.1206(b)(10)(i)(B)]
   ii) The alternative standard that the permittee recommends under §63.1206(b)(10)(i)(A) may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation. [§63.1206(b)(10)(ii)]
   iii) The alternative standard shall include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in §63.1206(b)(10)(ix). [§63.1206(b)(10)(iii)]
   iv) *Documentation required.* [§63.1206(b)(10)(iv)]
      (1) The alternative standard petition the permittee submits under §63.1206(b)(10)(i)(A) shall include data or information documenting that raw material contributions to emissions prevent the permittee from complying with the emission standard even though the source is using MACT, as defined in §63.1206(b)(10)(ix), for the standard for which the permittee is seeking relief. [§63.1206(b)(10)(iv)(A)]
      (2) Alternative standard petitions that the permittee submits under §63.1206(b)(10)(i)(B) shall include data or information documenting that Hg is not present at detectable levels in raw materials. [§63.1206(b)(10)(iv)(B)]
   v) The permittee shall include data or information with semi volatile metal and low volatile metal alternative standard petitions that the permittee submit under §63.1206(b)(10)(i)(A) documenting that increased chlorine feed rates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. [§63.1206(b)(10)(v)]
   vi) The permittee shall include data or information with semi volatile metals, low volatile metals, and HCl/chlorine gas alternative standard petitions that the permittee submits under §63.1206(b)(10)(i)(A) documenting that emissions of the regulated metals and HCl/chlorine gas attributable to the hazardous waste only shall not exceed the emission standards in MACT EEE. [§63.1206(b)(10)(vi)]
   vii) The permittee shall not operate pursuant to the recommended alternative standards in lieu of emission standards specified in MACT EEE: [§63.1206(b)(10)(vii)]
      (1) Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and [§63.1206(b)(10)(vii)(A)]
      (2) Until the permittee submits a revised Notification of Compliance that incorporates the revised standards. [§63.1206(b)(10)(vii)(B)]
   viii) For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as: [§63.1206(b)(10)(ix)]
      (1) For Hg, a hazardous waste feedrate corresponding to an MTEC of seven µg/dscm or less; [§63.1206(b)(10)(ix)(A)]

(2) For semi volatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less; [§63.1206(b)(10)(ix)(B)]
(3) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 15,000 µg/dscm or less, and use of a PM control device that achieves PM emissions of 0.15 kg/Mg dry feed or less; [§63.1206(b)(10)(ix)(C)]
(4) For HCl/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 420,000 µgm/dscm or less. [§63.1206(b)(10)(ix)(D)]

j) *Calculation of hazardous waste residence time.* The permittee shall calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. The permittee shall also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(c) and the Notification of Compliance under §§63.1207(j) and 63.1210(d). [§63.1206(b)(11)]

k) *Documenting compliance with the standards based on performance testing.* [§63.1206(b)(12)]
i) The permittee shall conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of MACT EEE. [§63.1206(b)(12)(i)]
ii) The permittee shall document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that the permittee shall document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. [§63.1206(b)(12)(ii)]

l) *Cement kiln that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired.* [§63.1206(b)(13)]
i) Cement kilns that feed hazardous waste at a location other than the end where products are normally discharged and where fuels are normally fired shall comply with the CO and hydrocarbon standards of MACT EEE as follows: [§63.1206(b)(13)(i)]
(1) For new sources, the permittee shall not discharge or cause combustion gases to be emitted into the atmosphere that contain either: [§63.1206(b)(13)(i)(B)]
(a) Hydrocarbons in the main stack in excess of 20 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane; or [§63.1206(b)(13)(i)(B)(1)]
(b) Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of ten ppmv, at each location, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane, and [§63.1206(b)(13)(i)(B)(2)(i)]
(i) If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the kiln end where products are normally discharged, then both hydrocarbons at the preheater tower combustion gas monitoring location in excess of ten ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane, and either hydrocarbons in the by-pass duct in excess of ten ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane, or CO in excess of 100 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, and corrected to seven percent O_2. If the permittee complies with the CO standard of 100 ppmv in the by-pass duct, then the permittee shall also not discharge or cause combustion gases to

be emitted into the atmosphere that contain hydrocarbons in the by-pass duct in excess of ten ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to seven percent O_2, and reported as propane, at any time during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7). [§63.1206(b)(13)(i)(B)(3)(i)]

2. *Operating requirements* — [§63.1206(c)]
   a) *General.* [§63.1206(c)(1)]
      i) The permittee shall operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(d), except: [§63.1206(c)(1)(i)]
         (1) During performance tests under approved test plans according to §63.1207(e), (f), and (g), and [§63.1206(c)(1)(i)(A)]
         (2) Under the conditions of §63.1206(b)(1)(i) or (ii); [§63.1206(c)(1)(i)(B)]
      ii) The Documentation of Compliance and the Notification of Compliance shall contain operating requirements including, but not limited to, the operating requirements §63.1206 and §63.1209. [§63.1206(c)(1)(ii)]
      iii) Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of MACT EEE; [§63.1206(c)(1)(iii)]
      iv) Operating requirements in the Notification of Compliance are applicable requirements for purposes of 40 CFR Part 70; [§63.1206(c)(1)(iv)]
      v) The operating requirements specified in the Notification of Compliance shall be incorporated in the Title V permit. [§63.1206(c)(1)(v)]
   b) *Startup, shutdown, and malfunction plan.* [§63.1206(c)(2)]
      i) The permittee shall comply with the startup, shutdown, and malfunction plan requirements of §63.6(e)(3). [§63.1206(c)(2)(i)]
      ii) The permittee shall identify in the plan a projected O_2 correction factor based on normal operations to use during periods of startup and shutdown. [§63.1206(c)(2)(iii)]
      iii) The permittee shall record the plan in the operating record. [§63.1206(c)(2)(iv)]
      iv) *Operating under the startup, shutdown, and malfunction plan* — [§63.1206(c)(2)(v)]
         (1) *Compliance with AWFCO requirements during malfunctions.* [§63.1206(c)(2)(v)(A)]
            (a) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for §63.1206(c)(3)(v) and (vi). If the permittee exceeds a MACT EEE emission standard monitored by a CEMS or operating limit specified under §63.1209, the automatic waste feed cutoff system shall immediately and automatically cutoff the hazardous waste feed, except as provided by §63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, the permittee shall cease feeding hazardous waste as quickly as possible. [§63.1206(c)(2)(v)(A)(1)]
            (b) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or operating limit specified under §63.1209 is not a violation of MACT EEE if the permittee takes the corrective measures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(A)(2)]
            (c) *Excessive exceedances during malfunctions.* For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not

transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee shall: [§63.1206(c)(2)(v)(A)(3)]

(i) Within 45 days of the tenth exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and [§63.1206(c)(2)(v)(A)(3)(i)]

(ii) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3). [§63.1206(c)(2)(v)(A)(3)(ii)]

(2) *Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.* [§63.1206(c)(2)(v)(B)]

(a) If the permittee feeds hazardous waste during startup or shutdown, the permittee shall include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(1)]

(b) The permittee shall interlock the operating limits the permittee establishes under §63.1206(c)(2)(v)(B)(1) with the automatic waste feed cutoff system required under §63.1206(c)(3), except for §63.1206(c)(3)(v) and (vi). [§63.1206(c)(2)(v)(B)(2)]

(c) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system shall immediately and automatically cutoff the hazardous waste feed if the permittee exceeds the operating limits the permittee established under §63.1206(c)(2)(v)(B)(1), except as provided by §63.1206(c)(3)(viii). [§63.1206(c)(2)(v)(B)(3)]

(d) Although the automatic waste feed cutoff requirements of this paragraph apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of MACT EEE if the permittee complies with the operating procedures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(4)]

c) *Automatic waste feed cutoff (AWFCO)* — [§63.1206(c)(3)]

i) *General.* Upon the compliance date, the permittee shall operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by §63.1206(c)(3)(viii): [§63.1206(c)(3)(i)]

(1) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; and the allowable combustion chamber pressure; [§63.1206(c)(3)(i)(A)]

(2) When the span value of any CMS detector, except a CEMS, is met or exceeded; [§63.1206(c)(3)(i)(B)]

(3) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or [§63.1206(c)(3)(i)(C)]

(4) When any component of the automatic waste feed cutoff system fails. [§63.1206(c)(3)(i)(D)]

ii) *Ducting of combustion gases.* During an AWFCO, the permittee shall continue to duct combustion gasses to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). [§63.1206(c)(3)(ii)]

iii) *Restarting waste feed.* The permittee shall continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under §63.1209 to be monitored by a CEMS, and the permittee shall not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits. [§63.1206(c)(3)(iii)]

iv) *Failure of the AWFCO system.* If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter required to be interlocked with the AWFCO system under §63.1206(c)(3)(i), the permittee has failed to comply with the AWFCO requirements of §63.1206(c)(3). If an equipment or other failure prevents immediate and automatic cutoff of the hazardous waste feed, however, the permittee shall cease feeding hazardous waste as quickly as possible. [§63.1206(c)(3)(iv)]

v) *Corrective measures.* If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), the permittee shall investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record. [§63.1206(c)(3)(v)]

vi) *Excessive exceedance reporting.* [§63.1206(c)(3)(vi)]

(1) For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee shall submit to the Administrator a written report within five calendar days of the tenth exceedance documenting the exceedances and results of the investigation and corrective measures taken. [§63.1206(c)(3)(vi)(A)]

(2) On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than ten exceedances occur during a 60-day block period. [§63.1206(c)(3)(vi)(B)]

vii) *Testing.* The AWFCO system and associated alarms shall be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee shall conduct operability testing at least monthly. The permittee shall document and record in the operating record AWFCO operability test procedures and results. [§63.1206(c)(3)(vii)]

viii) *Ramping down waste feed.* [§63.1206(c)(3)(viii)]

(1) The permittee may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by §63.1206(c)(3)(viii)(B). If the permittee elects to ramp down the waste feed, the permittee shall document ramp down procedures in the operating and maintenance plan. The procedures shall specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures shall prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, the permittee has failed to comply with the emission standards or operating requirements of MACT EEE. [§63.1206(c)(3)(viii)(A)]

(2) If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, the permittee may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous

waste firing system operating limits that may be established for the combustor. [§63.1206(c)(3)(viii)(B)]

d) *ESV openings* — [§63.1206(c)(4)]
   i) *Failure to meet standards.* If an emergency safety vent (ESV) opens when hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not expired) during an event other than a malfunction as defined in the startup, shutdown, and malfunction plan such that combustion gases are not treated as during the most recent comprehensive performance test (e.g., if the combustion gas by-passes any emission control device that was operating during the performance test), the permittee shall document in the operating record whether the permittee remains in compliance with the emission standards of MACT EEE considering emissions during the ESV opening event. [§63.1206(c)(4)(i)]
   ii) *ESV operating plan.* [§63.1206(c)(4)(ii)]
      (1) The permittee shall develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record. [§63.1206(c)(4)(ii)(A)]
      (2) The ESV operating plan shall provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan shall include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible. [§63.1206(c)(4)(ii)(B)]
   iii) *Corrective measures.* After any ESV opening that results in a failure to meet the emission standards as defined in §63.1206(c)(4)(i), the permittee shall investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record. [§63.1206(c)(4)(iii)]
   iv) *Reporting requirements.* The permittee shall submit to the Administrator a written report within five days of an ESV opening that results in failure to meet the emission standards of MACT EEE (as determined in §63.1206(c)(4)(i)) documenting the result of the investigation and corrective measures taken. [§63.1206(c)(4)(iv)]

e) *Combustion system leaks.* [§63.1206(c)(5)]
   i) Combustion system leaks of HAPs shall be controlled by: [§63.1206(c)(5)(i)]
      (1) Keeping the combustion zone sealed to prevent combustion system leaks; or [§63.1206(c)(5)(i)(A)]
      (2) Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or [§63.1206(c)(5)(i)(B)]
      (3) Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure; or [§63.1206(c)(5)(i)(C)]
      (4) Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits; and [§63.1206(c)(5)(i)(D)]
   ii) The permittee shall specify in the performance test work plan and Notification of Compliance the method that will be used to control combustion system leaks. If the permittee controls combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, the permittee shall also specify in the performance test work plan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system. [§63.1206(c)(5)(ii)]

f) *Operator training and certification.* [§63.1206(c)(6)]
   i) The permittee shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of HAPs from the source. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feed streams, persons that manage and charge feed streams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in §63.1206(c)(6)(iii) through (vi). [§63.1206(c)(6)(i)]
   ii) The permittee shall ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of HAPs. A certified control room operator shall be on duty at the site at all times the source is in operation. [§63.1206(c)(6)(ii)]
   iii) Hazardous waste incinerator control room operators shall: [§63.1206(c)(6)(iii)]
      (1) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of §63.1206(c)(6)(v); or [§63.1206(c)(6)(iii)(A)]
      (2) Be trained under the requirements of, and certified under, one of the following American Society of Mechanical Engineers (ASME) standards: QHO–1–1994, QHO–1a–1996, or QHO–1–2004 (Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators). If the permittee elects to use the ASME program: [§63.1206(c)(6)(iii)(B)]
         (a) Control room operators shall, prior to the compliance date, achieve provisional certification, and shall submit an application to ASME and be scheduled for the full certification exam. Within one year of the compliance date, control room operators shall achieve full certification; [§63.1206(c)(6)(iii)(B)(1)]
         (b) New operators and operators of new sources shall, before assuming their duties, achieve provisional certification, and shall submit an application to ASME, and be scheduled for the full certification exam. Within one year of assuming their duties, these operators shall achieve full certification; or [§63.1206(c)(6)(iii)(B)(2)]
      (3) Be trained and certified under a state program. [§63.1206(c)(6)(iii)(C)]
   iv) Control room operators of cement kilns shall be trained and certified under: [§63.1206(c)(6)(iv)]
      (1) A site-specific, source-developed and implemented program that meets the requirements of §63.1206(c)(6)(v); or [§63.1206(c)(6)(iv)(A)]
      (2) A state program. [§63.1206(c)(6)(iv)(B)]
   v) Site-specific, source developed and implemented training programs for control room operators shall include the following elements: [§63.1206(c)(6)(v)]
      (1) Training on the following subjects: [§63.1206(c)(6)(v)(A)]
         (a) Environmental concerns, including types of emissions; [§63.1206(c)(6)(v)(A)(1)]
         (b) Basic combustion principles, including products of combustion; [§63.1206(c)(6)(v)(A)(2)]
         (c) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures; [§63.1206(c)(6)(v)(A)(3)]

(d) Combustion controls and continuous monitoring systems; [§63.1206(c)(6)(v)(A)(4)]
(e) Operation of air pollution control equipment and factors affecting performance; [§63.1206(c)(6)(v)(A)(5)]
(f) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices; [§63.1206(c)(6)(v)(A)(6)]
(g) Actions to correct malfunctions or conditions that may lead to malfunction; [§63.1206(c)(6)(v)(A)(7)]
(h) Residue characteristics and handling procedures; and [§63.1206(c)(6)(v)(A)(8)]
(i) Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and [§63.1206(c)(6)(v)(A)(9)]

(2) An examination designed and administered by the instructor; and [§63.1206(c)(6)(v)(B)]
(3) Written material covering the training course topics that may serve as reference material following completion of the course. [§63.1206(c)(6)(v)(C)]

vi) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by §63.1206(c)(6)(v), control room operators shall complete an annual review or refresher course covering, at a minimum, the following topics: [§63.1206(c)(6)(vi)]
(1) Update of regulations; [§63.1206(c)(6)(vi)(A)]
(2) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling; [§63.1206(c)(6)(vi)(B)]
(3) Inspection and maintenance; [§63.1206(c)(6)(vi)(C)]
(4) Responses to malfunctions or conditions that may lead to malfunction; and [§63.1206(c)(6)(vi)(D)]
(5) Operating problems encountered by the operator. [§63.1206(c)(6)(vi)(E)]

vii) The permittee shall record the operator training and certification program in the operating record. [§63.1206(c)(6)(vii)]

g) *Operation and maintenance plan* — [§63.1206(c)(7)]
i) The permittee shall prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated HAPs. [§63.1206(c)(7)(i)]
ii) The plan shall prescribe how the permittee will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. [§63.1206(c)(7)(ii)]
iii) This plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions. [§63.1206(c)(7)(iii)]
iv) The permittee shall record the plan in the operating record. [§63.1206(c)(7)(iv)]

h) *BLDS requirements.* [§63.1206(c)(8)]
i) If the combustor is equipped with a baghouse (fabric filter), the permittee shall continuously operate either: [§63.1206(c)(8)(i)]
(1) A BLDS that meets the specifications and requirements of §63.1206(c)(8)(ii) and the permittee shall comply with the corrective measures and notification requirements of §63.1206(c)(8)(iii) and (iv). [§63.1206(c)(8)(i)(A)]
ii) *BLDS specification and requirements.* [§63.1206(c)(8)(ii)]
(1) The BLDS shall be certified by the manufacturer to be capable of continuously detecting and recording PM emissions at concentrations of 1.0 mg per actual m^3 unless the

permittee demonstrates, under §63.1209(g)(1), that a higher detection limit would routinely detect PM loadings during normal operations; [§63.1206(c)(8)(ii)(A)]

(2) The BLDS shall provide output of relative or absolute PM loadings; [§63.1206(c)(8)(ii)(B)]

(3) The BLDS shall be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level; [§63.1206(c)(8)(ii)(C)]

(4) The BLDS shall be installed and operated in a manner consistent with available written guidance from the EPA or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system; [§63.1206(c)(8)(ii)(D)]

(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time; [§63.1206(c)(8)(ii)(E)]

(6) Following initial adjustment, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the operation and maintenance plan required under §63.1206(c)(7). The permittee shall not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition; [§63.1206(c)(8)(ii)(F)]

(7) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse; and [§63.1206(c)(8)(ii)(G)]

(8) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors. [§63.1206(c)(8)(ii)(H)]

iii) *BLDS corrective measures requirements*. The operating and maintenance plan required by §63.1206(c)(7) shall include a corrective measures plan that specifies the procedures the permittee will follow in the case of a BLDS alarm or malfunction. The corrective measures plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm or BLDS malfunction in accordance with the requirements of §63.1206(c)(8)(iii)(A) as well as the corrective measures taken to correct the control device or BLDS malfunction or to minimize emissions in accordance with the requirements of §63.1206(c)(8)(iii)(B). Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards in MACT EEE. [§63.1206(c)(8)(iii)]

(1) The permittee shall initiate the procedures used to determine the cause of the alarm or BLDS malfunction within 30 minutes of the time the alarm first sounds; and [§63.1206(c)(8)(iii)(A)]

(2) The permittee shall alleviate the cause of the alarm or BLDS malfunction by taking the necessary corrective measure(s) which may include, but are not to be limited to, the following: [§63.1206(c)(8)(iii)(B)]

(a) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions; [§63.1206(c)(8)(iii)(B)(1)]

(b) Sealing off defective bags or filter media; [§63.1206(c)(8)(iii)(B)(2)]

(c) Replacing defective bags or filter media, or otherwise repairing the control device; [§63.1206(c)(8)(iii)(B)(3)]
(d) Sealing off a defective baghouse compartment; [§63.1206(c)(8)(iii)(B)(4)]
(e) Cleaning the BLDS probe, or otherwise repairing the BLDS; or [§63.1206(c)(8)(iii)(B)(5)]
(f) Shutting down the combustor. [§63.1206(c)(8)(iii)(B)(6)]

iv) *Excessive exceedances notification.* If the permittee operates the combustor when the detector response exceeds the alarm set-point or the BLDS is malfunctioning more than five percent of the time during any six-month block time period, the permittee shall submit a notification to the Administrator within 30 days of the end of the six-month block time period that describes the causes of the exceedances and BLDS malfunctions and the revisions to the design, operation, or maintenance of the combustor, baghouse, or BLDS the permittee is taking to minimize exceedances and BLDS malfunctions. To document compliance with this requirement: [§63.1206(c)(8)(iv)]

(1) The permittee shall keep records of the date, time, and duration of each alarm and BLDS malfunction, the time corrective action was initiated and completed, and a brief description of the cause of the alarm or BLDS malfunction and the corrective action taken; [§63.1206(c)(8)(iv)(A)]
(2) The permittee shall record the percent of the operating time during each six-month period that the alarm sounds and the BLDS malfunctions; [§63.1206(c)(8)(iv)(B)]
(3) If inspection of the fabric filter demonstrates that no corrective action is required, then no alarm time is counted; and [§63.1206(c)(8)(iv)(C)]
(4) If corrective action is required, each alarm shall be counted as a minimum of one hour. Each BLDS malfunction shall also be counted as a minimum of one hour. [§63.1206(c)(8)(iv)(D)]

Performance Tests:
The permittee shall refer to §63.1207 for Performance Testing requirements under MACT EEE.

Test Methods:
The permittee shall refer to §63.1208 for Test Methods applicable to MACT EEE.

Monitoring:
1. *CEMS and COMS.* [§63.1209(a)]
   a) The permittee shall use a hydrocarbon CEMS to demonstrate and monitor compliance with the CO and hydrocarbon standard under MACT EEE. The permittee shall also use an O_2 CEMS to continuously correct the CO or hydrocarbon level to seven percent O_2. [§63.1209(a)(1)(i)]
      i) The permittee shall install, calibrate, maintain, and operate a PM CEMS to demonstrate and monitor compliance with the PM standards under MACT EEE. However, compliance with the requirements in §63.1209 to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. [§63.1209(a)(1)(iii)]
      ii) As the permittee operates a cement kiln subject to the provisions of MACT EEE and uses a PM control device that exhausts through a monovent, the permittee shall comply with the opacity standard in accordance with the procedures of NSPS Method 9: [§63.1209(a)(1)(v)]
         (1) The permittee shall conduct the Method 9 test while the affected source is operating at the highest load or capacity level reasonably expected to occur within the day; [§63.1209(a)(1)(v)(A)]

(2) The duration of the Method 9 test shall be at least 30 minutes each day; [§63.1209(a)(1)(v)(B)]
(3) The permittee shall use the Method 9 procedures to monitor and record the average opacity for each six-minute block period during the test; and [§63.1209(a)(1)(v)(C)]
(4) To remain in compliance, all six-minute block averages shall not exceed the opacity standard. [§63.1209(a)(1)(v)(D)]

b) *Performance specifications.* The permittee shall install, calibrate, maintain, and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to MACT EEE and PS-1 (opacity), 4B (CO and O_2), and 8A (hydrocarbons) in NSPS Appendix B. [§63.1209(a)(2)]

c) *Hydrocarbon readings exceeding the span.* [§63.1209(a)(4)]
i) Except as provided by §63.1209(a)(4)(ii), if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by PS-8A in NSPS Appendix B the one-minute average shall be recorded as 500 ppmv. The one-minute 500 ppmv value shall be used for calculating the hourly rolling average HC level. [§63.1209(a)(4)(i)]
ii) Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to §63.1209(a)(4)(i). Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by PS-8A for other hydrocarbon CEMS, except: [§63.1209(a)(4)(ii)]
(1) The zero and high-level calibration gas shall have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively; [§63.1209(a)(4)(ii)(A)]
(2) The strip chart recorder, computer, or digital recorder shall be capable of recording all readings within the CEM measurement range and shall have a resolution of 2.5 ppmv; [§63.1209(a)(4)(ii)(B)]
(3) The CEMS calibration shall not differ by more than ±15 ppmv after each 24-hour period of the seven day test at both zero and high levels; [§63.1209(a)(4)(ii)(C)]
(4) The calibration error shall be no greater than 25 ppmv; and [§63.1209(a)(4)(ii)(D)]
(5) The zero level, mid-level, and high level calibration gas used to determine calibration error shall have a hydrocarbon level of 0–200 ppmv, 150–200 ppmv, and 350–400 ppmv, respectively. [§63.1209(a)(4)(ii)(E)]

d) *Petitions to use CEMS for other standards.* The permittee may petition the Administrator to use CEMS for compliance monitoring for PM, Hg, semi volatile metals, low volatile metals, and HCl and chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. [§63.1209(a)(5)]

e) *Calculation of rolling averages —* [§63.1209(a)(6)]
i) *Calculation of rolling averages initially.* The hydrocarbon CEMS shall begin recording one-minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance begins. [§63.1209(a)(6)(i)]
ii) *Calculation of rolling averages upon intermittent operations.* The permittee shall ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average. [§63.1209(a)(6)(ii)]
iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* [§63.1209(a)(6)(iii)]

(1) Except as provided by §63.1209(a)(6)(iii)(B), the permittee shall continue monitoring CO and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. The permittee shall not resume feeding hazardous waste if the emission levels exceed the standard. [§63.1209(a)(6)(iii)(A)]

(2) The permittee is not subject to the CEMS requirements of MACT EEE during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when the permittee is not burning hazardous waste). [§63.1209(a)(6)(iii)(B)]

2. *Other continuous monitoring systems (CMS).* [§63.1209(b)]

a) The permittee shall use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under §63.1209. [§63.1209(b)(1)]

b) Except as specified in §63.1209(b)(2)(i), the permittee shall install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system: [§63.1209(b)(2)]

i) *Calibration of thermocouples and pyrometers.* The calibration of thermocouples shall be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. The permittee shall operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee shall calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. [§63.1209(b)(2)(i)]

c) CMS shall sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds. [§63.1209(b)(3)]

d) The span of the non-CEMS CMS detector shall not be exceeded. The permittee shall interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). [§63.1209(b)(4)]

e) *Calculation of rolling averages* — [§63.1209(b)(5)]

i) *Calculation of rolling averages initially.* Continuous monitoring systems shall begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. [§63.1209(b)(5)(i)]

ii) *Calculation of rolling averages upon intermittent operations.* The permittee shall ignore periods of time when one-minute values are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages. [§63.1209(b)(5)(ii)]

iii) *Calculation of rolling averages when the hazardous waste feed is cutoff.* [§63.1209(b)(5)(iii)]

(1) Except as provided by §63.1209(b)(5)(iii)(B), the permittee shall continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee shall not resume feeding hazardous waste if an operating parameter exceeds its limit. [§63.1209(b)(5)(iii)(A)]

(2) The permittee is not subject to the CMS requirements of MACT EEE during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for nonhazardous waste burning sources when the permittee is not burning hazardous waste). [§63.1209(b)(5)(iii)(B)]

3. *Analysis of feed streams —* [§63.1209(c)]
   a) *General.* Prior to feeding the material, the permittee shall obtain an analysis of each feed stream that is sufficient to document compliance with the applicable feedrate limits provided §63.1209. [§63.1209(c)(1)]
   b) *Feed stream analysis plan.* The permittee shall develop and implement a feed stream analysis plan and record it in the operating record. The plan shall specify at a minimum: [§63.1209(c)(2)]
      i) The parameters for which the permittee will analyze each feed stream to ensure compliance with the operating parameter limits of §63.1209; [§63.1209(c)(2)(i)]
      ii) Whether the permittee will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information; [§63.1209(c)(2)(ii)]
      iii) How the permittee will use the analysis to document compliance with applicable feedrate limits (e.g., if the permittee blends hazardous wastes and obtain analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan shall describe how the permittee will determine the pertinent parameters of the blended waste); [§63.1209(c)(2)(iii)]
      iv) The test methods which the permittee will use to obtain the analyses; [§63.1209(c)(2)(iv)]
      v) The sampling method which the permittee will use to obtain a representative sample of each feed stream to be analyzed using sampling methods described in 40 CFR Part 266 Appendix IX or an equivalent method; and [§63.1209(c)(2)(v)]
      vi) The frequency with which the permittee will review or repeat the initial analysis of the feed stream to ensure that the analysis is accurate and up to date. [§63.1209(c)(2)(vi)]
   c) *Review and approval of analysis plan.* The permittee shall submit the feed stream analysis plan to the Administrator for review and approval, if requested. [§63.1209(c)(3)]
   d) *Compliance with feedrate limits.* To comply with the applicable feedrate limits of §63.1209, the permittee shall monitor and record feed rates as follows: [§63.1209(c)(4)]
      i) Determine and record the value of the parameter for each feed stream by sampling and analysis or other method; [§63.1209(c)(4)(i)]
      ii) Determine and record the mass or volume flow rate of each feed stream by a CMS. If the permittee determines flow rate of a feed stream by volume, the permittee shall determine and record the density of the feed stream by sampling and analysis (unless the permittee reports the constituent concentration in units of weight per unit volume (e.g., mg/l)); and [§63.1209(c)(4)(ii)]
      iii) Calculate and record the mass feedrate of the parameter per unit time. [§63.1209(c)(4)(iii)]
   e) *Waiver of monitoring of constituents in certain feed streams.* The permittee is not required to monitor levels of metals or chlorine in the following feed streams to document compliance with the feedrate limits under §63.1209 provided that the permittee documents in the comprehensive performance test plan the expected levels of the constituent in the feed stream and accounts for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air, and feed streams from vapor recovery systems. [§63.1209(c)(5)]
4. *Performance evaluations.* [§63.1209(d)]
   a) The requirements of §§63.8(d) and (e) apply, except that the permittee shall conduct performance evaluations of components of the CMS under the frequency and procedures (for

example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. [§63.1209(d)(1)]

b) The permittee shall comply with the quality assurance procedures for CEMS prescribed in the appendix to MACT EEE. [§63.1209(d)(2)]

5. *Conduct of monitoring.* The provisions of §63.8(b) apply. [§63.1209(e)]
6. *Operation and maintenance of continuous monitoring systems.* The provisions of §63.8(c) apply except: [§63.1209(f)]
   a) *§63.8(c)(3).* The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); [§63.1209(f)(1)]
   b) *§63.8(c)(4)(ii).* The performance specifications for hydrocarbon and O_2 CEMSs in NSPS B that requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and [§63.1209(f)(2)]
7. *Alternative monitoring requirements other than CEMS —* [§63.1209(g)]
   a) *Requests to use alternatives to operating parameter monitoring requirements.* [§63.1209(g)(1)]
      i) The permittee may submit an application to the Administrator under this paragraph for approval of alternative operating parameter monitoring requirements to document compliance with the emission standards of MACT EEE. For requests to use additional CEMS, however, the permittee shall use §63.1209(a)(5) and §63.8(f). Alternative requests to operating parameter monitoring requirements that include unproven monitoring methods may not be made under this paragraph and shall be made under §63.8(f). [§63.1209(g)(1)(i)]
      ii) The permittee may submit an application to waive an operating parameter limit specified in §63.1209 based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of MACT EEE. [§63.1209(g)(1)(ii)]
      iii) The permittee shall comply with the following procedures for applications submitted under §63.1209(g)(1)(i) and (ii): [§63.1209(g)(1)(iii)]
         (1) *Timing of the application.* The permittee shall submit the application to the Administrator not later than with the comprehensive performance test plan. [§63.1209(g)(1)(iii)(A)]
         (2) *Content of the application.* The permittee shall include in the application: [§63.1209(g)(1)(iii)(B)]
            (a) Data or information justifying the request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach; [§63.1209(g)(1)(iii)(B)(1)]
            (b) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and [§63.1209(g)(1)(iii)(B)(2)]
            (c) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. [§63.1209(g)(1)(iii)(B)(3)]
         (3) *Approval of request to use an alternative monitoring requirement or waive an operating parameter limit.* The Administrator will notify the permittee of approval or intention to

deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that the permittee submits. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify the permittee of the Administrator's intention to disapprove the request together with: [§63.1209(g)(1)(iii)(C)]

(a) Notice of the information and findings on which the intended disapproval is based; and [§63.1209(g)(1)(iii)(C)(1)]

(b) Notice of opportunity for the permittee to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the permittee of intention to disapprove the request, the Administrator will specify how much time the permittee will have after being notified of the intended disapproval to submit the additional information. [§63.1209(g)(1)(iii)(C)(2)]

(4) *Responsibility of the permittee.* The permittee is responsible for ensuring that the permittee submits any supplementary and additional information supporting the application in a timely manner to enable the Administrator to consider the application during review of the comprehensive performance test plan. Neither the submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves the permittee of the responsibility to comply with the provisions of MACT EEE. [§63.1209(g)(1)(iii)(D)]

iv) *Dual standards that incorporate the interim standards for HAP metals —* [§63.1209(g)(1)(iv)]

(1) *Semi volatile and low volatile metals.* The permittee may petition the Administrator to waive a feedrate operating parameter limit under §63.1209(n)(2) for either the emission standards expressed in a thermal emissions format or the interim standards based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis. [§63.1209(g)(1)(iv)(A)]

(2) *Hg.* The permittee may petition the Administrator to waive a feedrate operating parameter limit under §63.1209(l)(1) for the feed concentration standard under §63.1220(b)(2)(i) based on documentation that the feedrate operating parameter limit is not needed to ensure compliance with the relevant standard on a continuous basis. [§63.1209(g)(1)(iv)(B)]

b) *Administrator's discretion to specify additional or alternative requirements.* The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that the permittee may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on the PM control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of MACT EEE. [§63.1209(g)(2)]

8. *Reduction of monitoring data.* The provisions of §63.8(g) apply. [§63.1209(h)]
9. *When an operating parameter is applicable to multiple standards.* §63.1209(j) through (p) require the permittee to establish limits on operating parameters based on comprehensive performance testing to ensure the permittee maintains compliance with the emission standards of MACT EEE. For several parameters, the permittee shall establish a limit for the parameter to ensure compliance

with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standard of §63.1209(j) and the dioxin/furan standard of §63.1209(k). If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies. [§63.1209(i)]

10. *DRE.* To remain in compliance with the destruction and removal efficiency (DRE) standard, the permittee shall establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated): [§63.1209(j)]
    a) *Minimum combustion chamber temperature.* [§63.1209(j)(1)]
        i) The permittee shall measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee document the temperature measurement location in the test plan the permittee submits under §63.1207(e); [§63.1209(j)(1)(i)]
        ii) The permittee shall establish a minimum hourly rolling average limit as the average of the test run averages; [§63.1209(j)(1)(ii)]
    b) *Maximum flue gas flow rate or production rate.* [§63.1209(j)(2)]
        i) As an indicator of gas residence time in the control device, the permittee shall establish and comply with a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(j)(2)(i)]
        ii) The permittee shall comply with this limit on an hourly rolling average basis; [§63.1209(j)(2)(ii)]
    c) *Maximum hazardous waste feedrate.* [§63.1209(j)(3)]
        i) The permittee shall establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. [§63.1209(j)(3)(i)]
        ii) The permittee shall establish the limits as the average of the maximum hourly rolling averages for each run. [§63.1209(j)(3)(ii)]
        iii) The permittee shall comply with the feedrate limit(s) on an hourly rolling average basis; [§63.1209(j)(3)(iii)]
    d) *Operation of waste firing system.* The permittee shall specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [§63.1209(j)(4)]
11. *Dioxins and furans.* The permittee shall comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. The permittee shall base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(k)]
    a) *Gas temperature at the inlet to a dry PM control device.* [§63.1209(k)(1)]
        i) The permittee shall establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. The permittee shall establish the hourly rolling average limit as the average of the test run averages. [§63.1209(k)(1)(i)]
    b) *Maximum flue gas flow rate or production rate.* [§63.1209(k)(3)]
        i) As an indicator of gas residence time in the control device, the permittee shall establish and comply with a limit on the maximum flue gas flow rate, the maximum production rate, or

another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(k)(3)(i)]

ii) The permittee shall comply with this limit on an hourly rolling average basis; [§63.1209(k)(3)(ii)]

c) *Maximum hazardous waste feedrate.* [§63.1209(k)(4)]

i) The permittee shall establish limits on the maximum pumpable and total (pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed. [§63.1209(k)(4)(i)]

ii) The permittee shall establish the limits as the average of the maximum hourly rolling averages for each run. [§63.1209(k)(4)(ii)]

iii) The permittee shall comply with the feedrate limit(s) on an hourly rolling average basis; [§63.1209(k)(4)(iii)]

12. *Hg.* The permittee shall comply with the Hg emission standard by establishing and complying with the following operating parameter limits. The permittee shall base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(l)]

a) *Feedrate of Hg.* [§63.1209(l)(1)]

i) For cement kilns: [§63.1209(l)(1)(iii)]

(1) When complying with the emission standard under §63.1220(b)(2)(i), the permittee shall: [§63.1209(l)(1)(iii)(A)]

(a) Comply with the Hg hazardous waste feed concentration operating requirement on a twelve-hour rolling average; [§63.1209(l)(1)(iii)(A)(1)]

(b) Monitor and record in the operating record the as-fired Hg concentration in the hazardous waste (or the weighted-average Hg concentration for multiple hazardous waste feed streams); [§63.1209(l)(1)(iii)(A)(2)]

(c) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the as-fired Hg concentration operating requirement is exceeded; [§63.1209(l)(1)(iii)(A)(3)]

(2) When complying with the emission standard under §63.1220(b)(2)(ii)(A), the permittee shall establish a 12-hour rolling average limit for the feedrate of Hg in all feed streams as the average of the test run averages; [§63.1209(l)(1)(iii)(B)]

(3) Except as provided by §63.1209(l)(1)(iii)(D), when complying with the hazardous waste maximum theoretical emission concentration (MTEC) under §63.1220(b)(2)(ii)(B), the permittee shall: [§63.1209(l)(1)(iii)(C)]

(a) Comply with the MTEC operating requirement on a twelve-hour rolling average; [§63.1209(l)(1)(iii)(C)(1)]

(b) Monitor and record the feedrate of Hg for each hazardous waste feed stream according to §63.1209(c); [§63.1209(l)(1)(iii)(C)(2)]

(c) Monitor with a CMS and record in the operating record the gas flow rate (either directly or by monitoring a surrogate parameter that has been correlated to gas flow rate); [§63.1209(l)(1)(iii)(C)(3)]

(d) Continuously calculate and record in the operating record a MTEC assuming Hg from all hazardous waste feed streams is emitted; [§63.1209(l)(1)(iii)(C)(4)]

(e) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when the MTEC operating requirement is exceeded; [§63.1209(l)(1)(iii)(C)(5)]

(4) In lieu of complying with §63.1209(l)(1)(iii)(C), the permittee may: [§63.1209(l)(1)(iii)(D)]
(a) Identify in the Notification of Compliance a minimum gas flow rate limit and a maximum feedrate limit of Hg from all hazardous waste feed streams that ensures the MTEC calculated in §63.1209(l)(1)(iii)(C)(4) is below the operating requirement under §63.1220(b)(2)(ii)(B); and [§63.1209(l)(1)(iii)(D)(1)]
(b) Initiate an automatic waste feed cutoff that immediately and automatically cuts off the hazardous waste feed when either the gas flow rate or Hg feedrate exceeds the limits identified in §63.1209(l)(1)(iii)(D)(1). [§63.1209(l)(1)(iii)(D)(2)]

ii) *Extrapolation of feedrate levels.* In lieu of establishing Hg feedrate limits as specified in §63.1209(l)(1)(iii), the permittee may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the Hg feed rates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review shall consider in particular whether: [§63.1209(l)(1)(v)]
(1) Performance test metal feed rates are appropriate (i.e., whether feed rates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and [§63.1209(l)(1)(v)(A)]
(2) Whether the extrapolated feed rates the permittee requests are warranted considering historical metal feedrate data. [§63.1209(l)(1)(v)(B)]

13. *PM.* The permittee shall comply with the PM emission standard by establishing and complying with the following operating parameter limits. The permittee shall base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(m)]
a) *Maximum flue gas flow rate or production rate.* [§63.1209(m)(2)]
i) As an indicator of gas residence time in the control device, the permittee shall establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(m)(2)(i)]
ii) The permittee shall comply with this limit on an hourly rolling average basis; [§63.1209(m)(2)(ii)]

14. *Semi volatile metals and low volatility metals.* The permittee shall comply with the semi volatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. The permittee shall base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(n)]
a) *Maximum inlet temperature to dry PM air pollution control device.* The permittee shall establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., baghouse) on an hourly rolling average basis as the average of the test run averages. [§63.1209(n)(1)]
b) *Maximum feedrate of semi volatile and low volatile metals* — [§63.1209(n)(2)]
i) *General.* The permittee shall establish feedrate limits for semi volatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by §63.1209(n)(2)(vii). [§63.1209(n)(2)(i)]

ii) *Cement kilns under §63.1220.* [§63.1209(n)(2)(iii)]
(1) When complying with the emission standards under §63.1220(b)(3)(i) and (4)(i), the permittee shall establish 12-hour rolling average feedrate limits for semi volatile and low volatile metals as the thermal concentration of semi volatile metals or low volatile metals in all hazardous waste feed streams. The permittee shall calculate hazardous waste thermal concentrations for semi volatile metals and low volatile metals for each run as the total mass feedrate of semi volatile metals or low volatile metals for all hazardous waste feed streams divided by the total heat input rate for all hazardous waste feed streams. The 12-hour rolling average feedrate limits for semi volatile metals and low volatile metals are the average of the test run averages, calculated on a thermal concentration basis, for all hazardous waste feeds. [§63.1209(n)(2)(iii)(A)]
(2) When complying with the emission standards under §§63.1220(b)(3)(ii) and (4)(ii), the permittee shall establish 12-hour rolling average limits for the total feedrate of semi volatile and low volatile metals in all feed streams as the average of the test run averages. [§63.1209(n)(2)(iii)(B)]

iii) *LVM limits for pumpable wastes.* The permittee shall establish separate feedrate limits for low volatile metals in pumpable feed streams using the procedures prescribed above for total low volatile metals. Dual feedrate limits for both pumpable and total feed streams are not required, however, if the permittee bases the total feedrate limit solely on the feedrate of pumpable feed streams. [§63.1209(n)(2)(vi)]

iv) *Extrapolation of feedrate levels.* In lieu of establishing feedrate limits as specified in §63.1209(n)(2)(ii), (iii), and (vi), the permittee may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the semi volatile metal and low volatile metal feed rates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review shall consider in particular whether: [§63.1209(n)(2)(vii)]
(1) Performance test metal feed rates are appropriate (i.e., whether feed rates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and [§63.1209(n)(2)(vii)(A)]
(2) Whether the extrapolated feed rates the permittee requests are warranted considering historical metal feedrate data. [§63.1209(n)(2)(vii)(B)]

c) *Maximum total chlorine and chloride feedrate.* The permittee shall establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feed streams as the average of the test run averages. [§63.1209(n)(4)]

d) *Maximum flue gas flow rate or production rate.* [§63.1209(n)(5)]
i) As an indicator of gas residence time in the control device, the permittee shall establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(n)(5)(i)]
ii) The permittee shall comply with this limit on an hourly rolling average basis. [§63.1209(n)(5)(ii)]

15. *HCl and chlorine gas.* The permittee shall comply with the HCl and chlorine gas emission standard by establishing and complying with the following operating parameter limits. The permittee shall

base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. [§63.1209(o)]

a) *Feedrate of total chlorine and chloride —* [§63.1209(o)(1)]
   i) *Cement kilns.* The permittee shall establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feed streams as the average of the test run averages. [§63.1209(o)(1)(i)]
b) *Maximum flue gas flow rate or production rate.* [§63.1209(o)(2)]
   i) As an indicator of gas residence time in the control device, the permittee shall establish a limit on the maximum flue gas flow rate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [§63.1209(o)(2)(i)]
   ii) The permittee shall comply with this limit on an hourly rolling average basis; [§63.1209(o)(2)(ii)]

16. *Maximum combustion chamber pressure.* If the permittee complies with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion systems leaks from hazardous waste combustion, the permittee shall perform instantaneous monitoring of pressure and the automatic waste feed cutoff system shall be engaged when negative pressure is not adequately maintained. [§63.1209(p)]
17. *Operating under different modes of operation.* If the permittee operates under different modes of operation, the permittee shall establish operating parameter limits for each mode. The permittee shall document in the operating record when the permittee changes a mode of operation and begins complying with the operating limits for an alternative mode of operation. [§63.1209(q)]
    a) *Operating under otherwise applicable standards after the hazardous waste residence time has transpired.* As provided by §63.1206(b)(1)(ii), the permittee may operate under otherwise applicable requirements promulgated under §§112 and 129 of the Clean Air Act in lieu of the substantive requirements of MACT EEE. [§63.1209(q)(1)]
       i) The otherwise applicable requirements promulgated under §§112 and 129 of the Clean Air Act are applicable requirements under MACT EEE. [§63.1209(q)(1)(i)]
       ii) The permittee shall specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in the Documentation of Compliance under §63.1211(c), the Notification of Compliance under §63.1207(j), and the Title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and recordkeeping. [§63.1209(q)(1)(ii)]
    b) *Calculating rolling averages under different modes of operation.* When the permittee transitions to a different mode of operation, the permittee shall calculate rolling averages as follows: [§63.1209(q)(2)]
       i) *Retrieval approach.* Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., ignore continuous monitoring system values subsequently recorded under other modes of operation when transitioning back to a mode of operation); or [§63.1209(q)(2)(i)]
       ii) *Start anew.* Calculate rolling averages anew without considering previous recordings. [§63.1209(q)(2)(ii)]
          (1) Rolling averages shall be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. [§63.1209(q)(2)(ii)(A)]

(2) The permittee may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or [§63.1209(q)(2)(ii)(B)]

iii) *Seamless transition.* Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation. [§63.1209(q)(2)(iii)]

18. *Averaging periods.* The averaging periods specified in §63.1209 for operating parameters are not-to-exceed averaging periods. The permittee may elect to use shorter averaging periods. For example, the permittee may elect to use a one-hour rolling average rather than the 12-hour rolling average specified in §63.1209(l)(1)(iii) for Hg. [§63.1209(r)]

CEMS Quality Assurance Procedures:

The permittee shall refer to the Appendix to MACT EEE for Quality Assurance Procedures for CEMS Used for Hazardous Waste Combustors.

Notifications:

1. *Summary of requirements.* [§63.1210(a)]

a) The permittee shall submit the following notifications to the Administrator: [§63.1210(a)(1)]

Reference	Notification
63.9(d)	Notification that the permittee is subject to special compliance requirements.
63.9(j)	Notification and documentation of any change in information already provided under §63.9.
63.1206(b)(5)(i)	Notification of changes in design, operation, or maintenance.
63.1206(c)(8)(iv)	Notification of excessive BLDS exceedances.
63.1207(e), 63.9(e) 63.9(g)(1) and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan.[1]
63.1210(d), 63.1207(j), 63.1207(k), 63.1207(l), 63.9(h), 63.10(d)(2), 63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations.

[1]The permittee may also be required on a case-by-case basis to submit a feed stream analysis plan under §63.1209(c)(3).

b) The permittee shall submit the following notifications to the Administrator if the permittee requests or elects to comply with alternative requirements: [§63.1210(a)(2)]

Reference	Notification, request, petition, or application
63.9(i)	The permittee may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
63.10(e)(3)(ii)	The permittee may request to reduce the frequency of excess emissions and CMS performance reports.
63.10(f)	The permittee may request to waive recordkeeping or reporting requirements.
63.1220(d)(2)(iii)	Notification that the permittee elects to comply with the emission averaging requirements for cement kilns with in-line raw mills.
63.1206(b)(4), 63.6(i), 63.9(c)	The permittee may request an extension of the compliance date for up to one year.
63.1206(b)(5)(i)(C)	The permittee may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.

63.1206(b)(8)(iii)(B)	If the permittee elects to conduct PM CEMS correlation testing and wish to have federal PM and opacity standards and associated operating limits waived during the testing, the permittee shall notify the Administrator by submitting the correlation test plan for review and approval.
63.1206(b)(8)(v)	The permittee may request approval to have the PM and opacity standards and associated operating limits and conditions waived for more than 96 hours for a correlation test.
63.1206(b)(10)	The permittee may request approval of alternative emission standards for Hg, semi volatile metal, low volatile metal, and HCl/chlorine gas under certain conditions.
63.1206(c)(5)(i)(C)	The permittee may request an alternative means of control to provide control of combustion system leaks.
63.1206(c)(5)(i)(D)	The permittee may request other techniques to prevent fugitive emissions without use of instantaneous pressure limits.
63.1207(d)(3)	The permittee may request more than 60 days to complete a performance test if additional time is needed for reasons beyond the permittee's control.
63.1207(e)(3), 63.7(h)	The permittee may request a time extension if the Administrator fails to approve or deny the test plan.
63.1207(h)(2)	The permittee may request to waive current operating parameter limits during pretesting for more than 720 hours.
63.1207(f)(1)(ii)(D)	The permittee may request a reduced hazardous waste feed stream analysis for organic HAPs if the reduced analysis continues to be representative of organic HAPs in the hazardous waste feed streams.
63.1207(g)(2)(v)	The permittee may request to operate under a wider operating range for a parameter during confirmatory performance testing.
63.1207(i)	The permittee may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing.
63.1207(j)(4)	The permittee may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond the permittee's control.
63.1207(l)(3)	After failure of a performance test, the permittee may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
63.1209(a)(5), 63.8(f)	The permittee may request: (1) Approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits.
63.1209(g)(1)	The permittee may request approval of: (1) Alternatives to operating parameter monitoring requirements, except for standards that require monitoring with a CEMS and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit.
63.1209(l)(1)	The permittee may request to extrapolate Hg feedrate limits.
63.1209(n)(2)	The permittee may request to extrapolate semi volatile and low volatile metal feedrate limits.
63.1211(d)	The permittee may request to use data compression techniques to record data on a less frequent basis than required by §63.1209.

2. *Notification of compliance.* [§63.1210(d)]
   a) The Notification of Compliance status requirements of §63.9(h) apply, except that: [§63.1210(d)(1)]

i) The notification is a Notification of Compliance, rather than compliance status; [§63.1210(d)(1)(i)]
ii) The notification is required for each comprehensive and confirmatory performance test; and [§63.1210(d)(1)(ii)]
iii) The permittee shall postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in MACT EEE rather than the 60th day as required by §63.9(h)(2)(ii). [§63.1210(d)(1)(iii)]

b) Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable. [§63.1210(d)(2)]
c) The Notification of Compliance requirements of §63.1207(j) also apply. [§63.1210(d)(3)]

General Provisions:

The permittee shall refer to Table 1 to MACT EEE for 40 CFR Part 63, Subpart A applicability.

Recordkeeping and Reporting:

1. *Summary of reporting requirements.* The permittee shall submit the following reports to the Administrator: [§63.1211(a)]

Reference	Report
63.10(d)(4)	Compliance progress reports, if required as a condition of an extension of the compliance date granted under §63.6(i).
63.10(d)(5)(i)	Periodic startup, shutdown, and malfunction reports.
63.10(d)(5)(ii)	Immediate startup, shutdown, and malfunction reports.
63.10(e)(3)	Excessive emissions and continuous monitoring system performance report and summary report.
63.1206(c)(3)(vi)	Excessive exceedances reports.
63.1206(c)(4)(iv)	Emergency safety vent opening reports.

2. *Summary of recordkeeping requirements.* The permittee shall retain the following in the operating record: [§63.1211(b)]

Reference	Document, Data, or Information
63.10(b) and (c)	Information required to document and maintain compliance with the regulations of MACT EEE, including data recorded by CMS, and copies of all notifications, reports, plans, and other documents submitted to the Administrator.
63.1220(d)(1)(ii)	Documentation of mode of operation changes for cement kilns with in-line raw mills.
63.1220(d)(2)(ii)	Documentation of compliance with the emission averaging requirements for cement kilns with in-line raw mills.
63.1206(b)(1)(ii)	If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including §§112 and 129, in lieu of the requirements of MACT EEE when not burning hazardous waste, the permittee shall document in the operating record that the permittee is in compliance with those requirements.
63.1206(b)(5)(ii)	Documentation that a change will not adversely affect compliance with the emission standards or operating requirements.
63.1206(b)(11)	Calculation of hazardous waste residence time.
63.1206(c)(2)	Startup, shutdown, and malfunction plan.
63.1206(c)(2)(v)(A)	Documentation of the permittee's investigation and evaluation of excessive exceedances during malfunctions.
63.1206(c)(3)(v)	Corrective measures for any automatic waste feed cutoff that results in an exceedance of an

	emission standard or operating parameter limit.
63.1206(c)(3)(vii)	Documentation and results of the automatic waste feed cutoff operability testing.
63.1206(c)(4)(ii)	Emergency safety vent operating plan.
63.1206(c)(4)(iii)	Corrective measures for any emergency safety vent opening.
63.1206(c)(5)(ii)	Method used for control of combustion system leaks.
63.1206(c)(6)	Operator training and certification program.
63.1206(c)(7)(i)	Operation and maintenance plan.
63.1209(c)(2)	Feed stream analysis plan.
63.1209(q)	Documentation of changes in modes of operation.
63.1211(c)	Documentation of compliance.

3. *Documentation of compliance.* [§63.1211(c)]
   a) By the compliance date, the permittee shall develop and include in the operating record a Documentation of Compliance. [§63.1211(c)(1)]
   b) The Documentation of Compliance shall identify the applicable emission standards under MACT EEE and the limits on the operating parameters under §63.1209 that will ensure compliance with those emission standards. [§63.1211(c)(2)]
   c) The permittee shall include a signed and dated certification in the Documentation of Compliance that: [§63.1211(c)(3)]
      i) Required CEMs and CMS are installed, calibrated, and continuously operating in compliance with the requirements of MACT EEE; and [§63.1211(c)(3)(i)]
      ii) Based on an engineering evaluation prepared under the permittee's direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation, and considering at a minimum the design, operation, and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feed streams, and available emissions data: [§63.1211(c)(3)(ii)]
         (1) The permittee is in compliance with the emission standards of MACT EEE; and [§63.1211(c)(3)(ii)(A)]
         (2) The limits on the operating parameters under §63.1209 ensure compliance with the emission standards of MACT EEE. [§63.1211(c)(3)(ii)(B)]
   d) The permittee shall comply with the emission standards and operating parameter limits specified in the Documentation of Compliance. [§63.1211(c)(4)]
4. *Data compression.* The permittee may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. The permittee shall submit the request for review and approval as part of the comprehensive performance test plan. [§63.1211(d)]
   a) The permittee shall record a data value at least once each ten minutes. [§63.1211(d)(1)]
   b) For each CEMS or operating parameter for which the permittee requests to use data compression techniques, the permittee shall recommend: [§63.1211(d)(2)]
      i) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring the permittee to revert to recording each one-minute value. [§63.1211(d)(2)(i)]
         (1) If the permittee exceeds a fluctuation limit, the permittee shall record each one-minute value for a period of time not less than ten minutes. [§63.1211(d)(2)(i)(A)]

(2) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, the permittee may reinitiate recording data values on a frequency of at least once each ten minutes; and [§63.1211(d)(2)(i)(B)]

ii) A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed. [§63.1211(d)(2)(ii)]

(1) Within this level and the operating parameter limit or emission standard, the permittee shall record each one-minute average. [§63.1211(d)(2)(ii)(A)]

(2) The data compression limit should reflect a level at which the permittee is unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average. [§63.1211(d)(2)(ii)(B)]

5. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
6. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.
7. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 027

Portland Cement MACT

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL – National Emission Standards for HAPs From the Portland Cement Manufacturing Industry

Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit
AS-02A	CM-08	CM-25	RM-22_1	RM-66_2	SG-04_1
AS-02B	CM-08_2	CM-26A	RM-22_2	RM-67	SG-05
AS-02D	CM-08A-E	CM-26B	RM-29	RM-68	SG-06
AS-03A	CM-09A	CM-30_1	RM-31	RM-71_1	SG-07
AS-04B	CM-09B	CM-30_2	RM-35	RM-71_2	SG-08
AS-05B	CM-09C	CM-30_3	RM-37	RM-73_1	SG-09
AS-07A_1	CM-10	KP-03	RM-39	RM-74_1	SG-21
AS-07B_1	CM-10_1	KP-03B	RM-40	RM-75_1	SG-22
AS-08C	CM-10A,F	KP-06	RM-41	SF-04	SG-23
CG-07A	CM-10C,G	KP-09	RM-50	SF-05_1	SG-24
CG-07B	CM-10D,H	KP-12	RM-51_2	SF-05_2	SG-25
CG-07C	CM-10E,I	KP-13	RM-51_3	SF-05_3	SG-26
CG-09B	CM-11	LM-02	RM-52	SF-11_1	SG-27
CG-09E	CM-12	LS-05	RM-52_1	SF-11_2	SG-28
CG-09F	CM-12A	LS-06	RM-52_2	SF-11_3	SG-29
CG-14	CM-15_1	LS-07	RM-53	SF-12	SG-30
CG-14A	CM-15_2	LS-08	RM-54	SF-13	SG-31
CG-14B	CM-15_3	LS-09	RM-55	SF-14	SG-33
CG-14C	CM-17	LS-10	RM-56	SF-61_1	SG-34
CG-14D	CM-18	LS-11	RM-60_1	SF-76	SH-01
CG-15	CM-19	LS-12	RM-60_2	SF-77	SH-02
CG-16	CM-20	RM-03A	RM-60_3	SF-79	SH-03
CG-19_2	CM-21A	RM-03B	RM-61_1	SF-81	SH-04,5
CM-04A	CM-21B	RM-03C	RM-62_1	SF-82	SH-07
CM-04B	CM-21C	RM-08	RM-63_1	SF-84	SH-08
CM-07	CM-22	RM-08C	RM-64	SF-86	SH-09
CM-07A	CM-23	RM-10_1	RM-65	SF-87	TEMP-02_1
CM-07B	CM-24	RM-10_2	RM-66_1		

Standards Effective until September 9, 2015:

General Provisions:

The permittee shall refer to Table 1 to MACT LLL for 40 CFR Part 63, Subpart A applicability.

Standards:

1. The permittee shall not cause or allow to be discharged into the atmosphere from the clinker cooler any gases which: [§63.1345(a)]
   a) Contain PM in excess of 0.10 lb/ton of feed (dry basis) to the kiln. [§63.1345(a)(1)]
   b) Exhibit opacity greater than ten percent. [§63.1345(a)(2)]

2. The permittee shall not cause or allow to be discharged into the atmosphere from each raw mill, finish mill, mill sweep, or air separator air pollution control devices of these affected sources any gases which exhibit opacity in excess of ten percent. [§63.1347]
3. The permittee shall not cause or allow to be discharged into the atmosphere from each raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system any gases which exhibit opacity in excess of ten percent. [§63.1348]

Performance Testing:
The permittee shall refer to §63.1349 for performance testing provisions under MACT LLL.

Monitoring:
1. The permittee shall prepare for each affected source subject to the provisions of MACT LLL, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a Part 70 permit and shall include the following information: [§63.1350(a)]
   a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §63.1345 through §63.1348; [§63.1350(a)(1)]
   b) Corrective actions to be taken when required by §63.1350(e); [§63.1350(a)(2)]
   c) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year; and [§63.1350(a)(3)]
   d) Procedures to be used to periodically monitor affected sources subject to opacity standards under §63.1346 and §63.1348. Such procedures shall include the provisions of §63.1350(a)(4)(i) through (iv). [§63.1350(a)(4)]
      i) The permittee shall conduct a monthly one-minute visible emissions test of each affected source in accordance with Method 22 of NSPS Appendix A. The test shall be conducted while the affected source is in operation. [§63.1350(a)(4)(i)]
      ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [§63.1350(a)(4)(ii)]
      iii) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [§63.1350(a)(4)(iii)]
      iv) If visible emissions are observed during any Method 22 test, the permittee shall conduct a six-minute test of opacity in accordance with Method 9 of NSPS Appendix A. The Method 9 test shall begin within one hour of any observation of visible emissions. [§63.1350(a)(4)(iv)]
      v) The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. “Totally enclosed conveying system transfer point” shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a

continuing basis in accordance with the facility operations and maintenance plan. [§63.1350(a)(4)(v)]

vi) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of §63.1350(a)(4)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself, according to §63.1350(a)(4)(vii). [§63.1350(a)(4)(vi)]

vii) If visible emissions from a building are monitored, the requirements of §63.1350(a)(4)(i) through (iv) apply to the monitoring of the building, and the permittee shall also test visible emissions from each side, roof and vent of the building for at least one minute. The test shall be conducted under normal operating conditions. [§63.1350(a)(4)(vii)]

2. Failure to comply with any provision of the operations and maintenance plan developed in accordance with §63.1350(a) shall be a violation of the standard. [§63.1350(b)]
3. The permittee shall monitor opacity at each point where emissions are vented from the clinker cooler in accordance with §63.1350(d)(1) and (3). [§63.1350(d)]
   a) The permittee shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the clinker cooler PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A, and according to PS-1 of NSPS Appendix B. [§63.1350(d)(1)]
   b) To remain in compliance, the opacity shall be maintained such that the six-minute average opacity for any six-minute block period does not exceed ten percent. If the average opacity for any 6-minute block period exceeds ten percent, this shall constitute a violation of the standard. [§63.1350(d)(3)]
4. For each raw mill or finish mill, the permittee shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCD of these affected sources in accordance with the procedures of Method 22 of NSPS Appendix A. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the permittee shall: [§63.1350(e)]
   a) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with §63.1350(a)(1) and (2); and [§63.1350(e)(1)]
   b) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, the permittee shall conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with Method 9 of NSPS Appendix A. The duration of the Method 9 test shall be 30 minutes. [§63.1350(e)(2)]
5. For each affected source subject to a limitation on opacity under §63.1346 or §63.1348, the permittee shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1350(j)]
6. The permittee may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of MACT LLL, subject to the provisions of §63.1350(l)(1) through (6). [§63.1350(l)]
   a) The Administrator will not approve averaging periods other than those specified in §63.1350, unless the permittee documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any

increment of time equivalent to the time required to conduct three runs of the performance test. [§63.1350(l)(1)]

b) If the application to use an alternate monitoring requirement is approved, the permittee shall continue to use the original monitoring requirement until approval is received to use another monitoring requirement. [§63.1350(l)(2)]

c) The permittee shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application shall contain the information specified in §63.1350(l)(3)(i) through (iii): [§63.1350(l)(3)]

i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [§63.1350(l)(3)(i)]

ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and [§63.1350(l)(3)(ii)]

iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard. [§63.1350(l)(3)(iii)]

d) The Administrator will notify the permittee of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide: [§63.1350(l)(4)]

i) Notice of the information and findings upon which the intended disapproval is based; and [§63.1350(l)(4)(i)]

ii) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [§63.1350(l)(4)(ii)]

e) The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provision of MACT LLL. [§63.1350(l)(5)]

f) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of MACT LLL. [§63.1350(l)(6)]

7. The requirements under §63.1350(e) to conduct daily Method 22 testing shall not apply to any specific raw mill or finish mill equipped with a COMS or BLDS. If the permittee chooses to install a COM in lieu of conducting the daily visual emissions testing required under §63.1350(e), then the COM shall be installed at the outlet of the PM control device of the raw mill or finish mill, and the COM shall be installed, maintained, calibrated, and operated as required by the general provisions in 40 CFR Part 63, Subpart A and according to PS-1 of NSPS Appendix B. To remain in compliance, the opacity shall be maintained such that the six-minute average opacity for any six-minute block period does not exceed ten percent. If the average opacity for any six-minute block period exceeds ten percent, this shall constitute a violation of the standard. If the permittee chooses to install a BLDS in lieu of conducting the daily visual emissions testing required under §63.1350(e), the requirements in §63.1350(m)(1) through (9) apply to each BLDS: [§63.1350(m)]

a) The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten milligrams per actual cubic meter (0.0044 gr/acf) or less. "Certify" shall mean that the instrument manufacturer has tested the instrument on gas streams having a range of particle size distributions and confirmed by means of valid filterable PM tests that the minimum detectable concentration limit is at or below ten milligrams per actual cubic meter (0.0044 gr/acf) or less. [§63.1350(m)(1)]
b) The sensor on the BLDS shall provide output of relative PM emissions. [§63.1350(m)(2)]
c) The BLDS shall have an alarm that will activate automatically when it detects a significant increase in relative PM emissions greater than a preset level. [§63.1350(m)(3)]
d) The presence of an alarm condition should be clearly apparent to facility operating personnel. [§63.1350(m)(4)]
e) For a positive-pressure fabric filter, each compartment or cell shall have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector shall be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm. [§63.1350(m)(5)]
f) All BLDS shall be installed, operated, adjusted, and maintained so that they are based on the manufacturer's written specifications and recommendations. The EPA recommends that where appropriate, the standard operating procedures manual for each BLDS include concepts from EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). [§63.1350(m)(6)]
g) The baseline output of the system shall be established as follows: [§63.1350(m)(7)]
    i) Adjust the range and the averaging period of the device; and [§63.1350(m)(7)(i)]
    ii) Establish the alarm set points and the alarm delay time. [§63.1350(m)(7)(ii)]
h) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations and maintenance plan required by §63.1350(a). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a one calendar year period unless a responsible official as defined in §63.2 certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition. [§63.1350(m)(8)]
i) The permittee shall maintain and operate the fabric filter such that the bag leak detector alarm is not activated and alarm condition does not exist for more than five percent of the total operating time in a six-month block period. Each time the alarm activates, alarm time will be counted as the actual amount of time taken by the permittee to initiate corrective actions. If inspection of the fabric filter demonstrates that no corrective actions are necessary, no alarm time will be counted. The permittee shall continuously record the output from the BLDS during periods of normal operation. Normal operation does not include periods when the BLDS is being maintained or during startup, shutdown or malfunction. [§63.1350(m)(9)]

Notifications:

1. The notification provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to affected sources subject to MACT LLL are listed in Table 1 of MACT LLL. If any state requires a notice that contains all of the information required in a notification listed in §63.1353, the permittee may send the Administrator a copy of the notice sent to the state to satisfy the requirements of §63.1353 for that notification. [§63.1353(a)]
2. The permittee shall comply with the notification requirements in §63.9 as follows: [§63.1353(b)]
    a) Initial notifications as required by §63.9(b) through (d). For the purposes of MACT LLL, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required

under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the state to which the permit application has been submitted has an approved operating permit program under 40 CFR Part 70 and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. [§63.1353(b)(1)]

b) Notification of performance tests, as required by §63.7 and §63.9(e). [§63.1353(b)(2)]
c) Notification of opacity and visible emission observations required by §63.1349 in accordance with §63.6(h)(5) and §63.9(f). [§63.1353(b)(3)]
d) Notification, as required by §63.9(g), of the date that the CEMS performance evaluation required by §63.8(e) is scheduled to begin. [§63.1353(b)(4)]
e) Notification of compliance status, as required by §63.9(h). [§63.1353(b)(5)]

Recordkeeping:

1. The permittee shall maintain files of all information (including all reports and notifications) required by §63.1355 recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
2. The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (3); and [§63.1355(b)]
   a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
   b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
   c) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]
3. In addition to the recordkeeping requirements in §63.1355(b), for each affected source equipped with a continuous monitoring system, the permittee shall maintain all records required by §63.10(c). [§63.1355(c)]
4. The permittee shall keep annual records of the amount of CKD which is removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system. [§63.1355(d)]
5. The permittee shall keep records of the amount of CKD recycled on an hourly basis. [§63.1355(e)]
6. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
7. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The reporting provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to affected sources subject to MACT LLL are listed in Table 1 of MACT LLL. If any state requires a report that contains all of the information required in a report listed in §63.1354, the permittee may

send the Administrator a copy of the report sent to the state to satisfy the requirements of §63.1354 for that report. [§63.1354(a)]

2. The permittee shall comply with the reporting requirements specified in §63.10 of the general provisions of 40 CFR Part 63, Subpart A as follows: [§63.1354(b)]
   a) As required by §63.10(d)(2), the permittee shall report the results of performance tests as part of the notification of compliance status. [§63.1354(b)(1)]
   b) As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]
   c) As required by §63.10(d)(4), the permittee is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i). The permittee shall submit such reports by the dates specified in the written extension of compliance. [§63.1354(b)(3)]
   d) As required by §63.10(d)(5), if actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in §63.6(e)(3), the permittee shall state such information in a semi-annual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and [§63.1354(b)(4)]
   e) Any time an action taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall make an immediate report of the actions taken for that event within two working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the permittee or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. [§63.1354(b)(5)]
   f) As required by §63.10(e)(2), the permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by §63.8(e). The permittee shall submit the report simultaneously with the results of the performance test. [§63.1354(b)(6)]
   g) As required by §63.10(e)(2), for each affected source using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6), the permittee shall report the results of the COMS performance evaluation conducted under §63.8(e). [§63.1354(b)(7)]
   h) As required by §63.10(e)(3), for each affected source equipped with a CEMS, the permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit. [§63.1354(b)(8)]
   i) The permittee shall submit a summary report semi-annually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [§63.1354(b)(9)]
      i) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1354(b)(9)(v)]
   j) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report. [§63.1354(b)(10)]

3. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
4. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

Standards Effective September 9, 2015 and after:

General Provisions:
The permittee shall refer to Table 1 to MACT LLL for 40 CFR Part 63, Subpart A applicability.

Standards:
1. General. The provisions in §63.1343 apply to each clinker cooler and open clinker storage pile. All emissions limits for clinker coolers currently in effect that are superseded by the limits below continue to apply until the compliance date of the limits below, or until the permittee certifies compliance with the limits below, whichever is earlier. [§63.1343(a)]
2. Clinker coolers, raw mills, and finish mills. The emissions limits for these sources are shown in Table 1 below. [§63.1343(b)(1)]

Table 1 — *Emissions Limits for Clinker Coolers, Raw and Finish Mills*

Affected Source	Operating Mode	Emission Limit	
An existing clinker cooler	Normal operation	PM — 0.07	lb/ton clinker
	Startup and shutdown	Work Practices	N/A
An existing or new raw or finish mill	All operating modes	Opacity—10	percent

3. Open clinker storage pile. The permittee shall prepare, and operate in accordance with, the fugitive dust emissions control measures, described in their operation and maintenance plan (see §63.1347), that is appropriate for the site conditions as specified in §63.1343(c)(1) through (3). The operation and maintenance plan shall also describe the measures that will be used to minimize fugitive dust emissions from piles of clinker, such as accidental spillage, that are not part of open clinker storage piles. [§63.1343(c)]
   a) The operation and maintenance plan shall identify and describe the location of each current or future open clinker storage pile and the fugitive dust emissions control measures the permittee will use to minimize fugitive dust emissions from each open clinker storage pile. [§63.1343(c)(1)]
   b) For open clinker storage piles, the operations and maintenance plan shall specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. The permittee shall select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan shall also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan shall be revised as needed to reflect any changing conditions at the source. [§63.1343(c)(2)]

c) Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations shall be cleaned up within three days. [§63.1343(c)(3)]

4. Emission limits in effect prior to September 9, 2010. Any source defined as an existing source in §63.1351, and that was subject to a PM or opacity emissions limit prior to September 9, 2010, shall continue to meet the limits shown in Table 2 to §63.1343 until September 9, 2015. [§63.1343(d)]
5. The permittee not cause to be discharged any gases from new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer which exhibit opacity in excess of ten percent. [§63.1345]
6. No kiln may use as a raw material or fuel any fly ash where the Hg content of the fly ash has been increased through the use of activated carbon, or any other sorbent, unless the facility can demonstrate that the use of that fly ash will not result in an increase in Hg emissions over baseline emissions (i.e., emissions not using the fly ash). The facility has the burden of proving there has been no emissions increase over baseline. Once the kiln is in compliance with a Hg emissions limit specified in §63.1343, this paragraph no longer applies. [§63.1346(f)]

Affirmative Defense:

The permittee shall refer to §63.1344 for information on asserting an affirmative defense under MACT LLL.

Operation and Maintenance Plan:

1. The permittee shall prepare, for each affected source subject to the provisions of MACT LLL, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a Part 70 permit and shall include the following information: [§63.1347(a)]
   a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles, of §§63.1343 through 63.1348. The operations and maintenance plan shall address periods of startup and shutdown; [§63.1347(a)(1)]
   b) Corrective actions to be taken when required by §63.1350(f)(3); [§63.1347(a)(2)]
   c) Procedures to be used during an inspection of the components of the combustion system of each in-line kiln raw mill located at the facility at least once per year. [§63.1347(a)(3)]
2. Failure to comply with any provision of the operations and maintenance plan developed in accordance with §63.1347 is a violation of the standard. [§63.1347(b)]

Compliance:

1. *Initial Performance Test Requirements.* The permittee shall demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §§63.1349 and 63.7. Note: The first day of the 30 operating day performance test is the first day after the compliance date following completion of the field testing and data collection that demonstrates that the CPMS or CEMS has satisfied the relevant CPMS performance evaluation or CEMS performance specification (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of the 30th consecutive operating day. See §63.1341 for definition of operating day and §63.1348(b)(1) for the CEMS operating requirements. The permittee has the option of performing the compliance test earlier then the compliance date if desired. [§63.1348(a)]
   a) *PM Compliance.* The permittee shall demonstrate compliance with the PM emissions standards by using the test methods and procedures in §63.1349(b)(1). [§63.1348(a)(1)]

b) *Opacity Compliance.* The permittee shall demonstrate compliance with the opacity emissions standards by using the performance test methods and procedures in §63.1349(b)(2). Use the maximum six-minute average opacity exhibited during the performance test period to determine whether the affected source is in compliance with the standard. [§63.1348(a)(2)]

2. *Continuous Monitoring Requirements.* The permittee shall demonstrate compliance with the emissions standards and operating limits by using the performance test methods and procedures in §§63.1350 and 63.8 for each affected source. [§63.1348(b)]
   a) *General Requirements.* [§63.1348(b)(1)]
      i) The permittee shall monitor and collect data according to §63.1350 and the site-specific monitoring plan required by §63.1350(p). [§63.1348(b)(1)(i)]
      ii) Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. [§63.1348(b)(1)(ii)]
      iii) The permittee may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. [§63.1348(b)(1)(iii)]
   b) *PM Compliance.* The permittee shall use the monitoring methods and procedures in §63.1350(b). [§63.1348(b)(2)]
   c) *Opacity Compliance.* The permittee shall demonstrate compliance using the monitoring methods and procedures in §63.1350(f) based on the maximum six-minute average opacity exhibited during the performance test period. The permittee shall initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)]
      i) *COMS.* If the permittee installs a COMS in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a COMS such that it is installed, operated, and maintained in accordance with the requirements of §63.1350(f)(4)(i). [§63.1348(b)(3)(i)]
      ii) *Bag leak determination system (BLDS).* If the permittee installs a BLDS on a raw mill or finish mill in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a BLDS that is installed, operated, and maintained in accordance with the requirements of §63.1350(f)(4)(ii). [§63.1348(b)(3)(ii)]
   d) Startup and Shutdown Compliance. In order to demonstrate continuous compliance during startup and shutdown, all air pollution control devices shall be operating. [§63.1348(b)(9)

3. *Changes in operations.* [§63.1348(c)]
   a) If the permittee plans to undertake a change in operations that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value under MACT LLL, the permittee shall conduct a performance test as specified in §63.1349(b). [§63.1348(c)(1)]
   b) In preparation for and while conducting a performance test required in §63.1349(b), the permittee may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in §63.1348(c)(2)(i) through (iv) are met. The

permittee shall submit temperature and other monitoring data that are recorded during the pretest operations. [§63.1348(c)(2)]

i) The permittee shall provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under MACT LLL for any source, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under §63.1348(c)(1), including when the planned operational change period would begin. [§63.1348(c)(2)(i)]

ii) The performance test results shall be documented in a test report according to §63.1349(a). [§63.1348(c)(2)(ii)]

iii) A test plan shall be made available to the Administrator prior to performance testing, if requested. [§63.1348(c)(2)(iii)]

iv) The performance test shall be completed within 360 hours after the planned operational change period begins. [§63.1348(c)(2)(iv)]

4. *General duty to minimize emissions.* At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.1348(d)]

Performance Testing:

The permittee shall refer to §63.1349 for performance testing requirements under MACT LLL.

Monitoring:

1. Following the compliance date, the permittee shall demonstrate compliance with MACT LLL on a continuous basis by meeting the requirements of §63.1350. [§63.1350(a)(1)]
2. All continuous monitoring data for periods of startup and shutdown shall be compiled and averaged separately from data gathered during other operating periods. [§63.1350(a)(2)]
3. For each existing unit that is equipped with a CMS, maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. [§63.1350(a)(3)]
4. Any instance where the permittee fails to comply with the continuous monitoring requirements of §63.1350 is a violation. [§63.1350(a)(4)]
5. *PM monitoring requirements.* [§63.1350(b)]
   a) *PM CPMS.* The permittee shall use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The permittee shall conduct the performance test using Method 5 or Method 5I at NSPS Appendix A-3. The permittee shall use the PM CPMS to demonstrate continuous compliance with this operating limit. The permittee shall repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in §63.1349(b)(1) (i) through (vi). The permittee shall also repeat the test if the permittee changes the analytical range of the instrument, or if the permittee replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration. [§63.1350(b)(1)(i)]

b) To determine continuous compliance, the permittee shall use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The permittee shall demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. [§63.1350(b)(1)(ii)]

c) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the permittee shall: [§63.1350(b)(1)(iii)]

i) Within 48 hours of the exceedance, visually inspect the APCD; [§63.1350(b)(1)(iii)(A)]

6. *Opacity monitoring requirements.* The permittee shall conduct required opacity monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee shall also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (4) and §63.1350(o)(5), if applicable. [§63.1350(f)]

a) The permittee shall conduct a monthly ten-minute visible emissions test of each affected source in accordance with Method 22 of NSPS Appendix A-7. The performance test shall be conducted while the affected source is in operation. [§63.1350(f)(1)(i)]

b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [§63.1350(f)(1)(ii)]

c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the permittee shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. [§63.1350(f)(1)(iii)]

d) If visible emissions are observed during any Method 22 performance test, of NSPS Appendix A-7, the permittee shall conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of NSPS Appendix A-4. The Method 9 performance test, of NSPS Appendix A-4, shall begin within one hour of any observation of visible emissions. [§63.1350(f)(1)(iv)]

e) Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [§63.1350(f)(1)(v)]

f) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee shall conduct a Method 22 performance test, of NSPS Appendix A-7, according to the requirements of §63.1350(f)(1)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself, according to §63.1350(f)(1)(vii). [§63.1350(f)(1)(vi)]

g) If visible emissions from a building are monitored, the requirements of §63.1350(f)(1)(i) through (iv) apply to the monitoring of the building, and the permittee shall also test visible emissions from each side, roof, and vent of the building for at least ten minutes. [§63.1350(f)(1)(vii)]

h) For a raw mill or finish mill, the permittee shall monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices of these affected sources in accordance with the procedures of Method 22 of NSPS Appendix A-7. The duration of the Method 22 performance test shall be six minutes. [§63.1350(f)(2)(i)]
i) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the permittee shall conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. [§63.1350(f)(2)(ii)]
j) If visible emissions are observed during the follow-up Method 22 performance test required by §63.1350(f)(2)(ii) from any stack from which visible emissions were observed during the previous Method 22 performance test required by §63.1350(f)(2)(i), the permittee shall then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of NSPS Appendix A-4. The duration of the Method 9 test shall be 30 minutes. [§63.1350(f)(2)(iii)]
k) If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1) or (2), the permittee shall initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]
l) The requirements under §63.1350(f)(2) to conduct daily Method 22 testing do not apply to any specific raw mill or finish mill equipped with a COMS or BLDS. [§63.1350(f)(4)]
    i) If the permittee chooses to install a COMS in lieu of conducting the daily visible emissions testing required under §63.1350(f)(2), then the COMS shall be installed at the outlet of the PM control device of the raw mill or finish mill and the COMS shall be installed, maintained, calibrated, and operated as required by the general provisions in 40 CFR Part 63, Subpart A and according to PS-1 of NSPS Appendix B. [§63.1350(f)(4)(i)]
    ii) If the permittee chooses to install a BLDS in lieu of conducting the daily visible emissions testing required under §63.1350(f)(2), the requirements in §63.1350(m)(1) through (4), (10) and (11) apply. [§63.1350(f)(4)(ii)]

7. *Parameter monitoring requirements.* If the permittee has an operating limit that requires the use of a CMS, the permittee shall install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in §63.1350(m)(1) through (4) by the compliance date specified in §63.1351. The permittee shall also meet the applicable specific parameter monitoring requirements in §63.1350(m)(10) and (11) that are applicable. [§63.1350(m)]
    a) The CMS shall complete a minimum of one cycle of operation for each successive 15-minute period. The permittee shall have a minimum of four successive cycles of operation to have a valid hour of data. [§63.1350(m)(1)]
    b) The permittee shall conduct all monitoring in continuous operation at all times that the unit is operating. [§63.1350(m)(2)]
    c) Determine the one-hour block average of all recorded readings. [§63.1350(m)(3)]
    d) Record the results of each inspection, calibration, and validation check. [§63.1350(m)(4)]
    e) *Bag leak detection monitoring requirements.* If the permittee elects to use a fabric filter BLDS to comply with the requirements of MACT LLL, the permittee shall install, calibrate, maintain, and continuously operate a BLDS as follows: [§63.1350(m)(10)]
        i) The permittee shall install and operate a BLDS for each exhaust stack of the fabric filter. [§63.1350(m)(10)(i)]

ii) Each BLDS shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997. [§63.1350(m)(10)(ii)]
iii) The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten or fewer milligrams per actual cubic meter. [§63.1350(m)(10)(iii)]
iv) The BLDS sensor shall provide output of relative or absolute PM loadings. [§63.1350(m)(10)(iv)]
v) The BLDS shall be equipped with a device to continuously record the output signal from the sensor. [§63.1350(m)(10)(v)]
vi) The BLDS shall be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located such that the alert is detected and recognized easily by an operator. [§63.1350(m)(10)(vi)]
vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a BLDS shall be installed in each baghouse compartment or cell. [§63.1350(m)(10)(vii)]
viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors. [§63.1350(m)(10)(viii)]

f) For each BLDS, the permittee shall initiate procedures to determine the cause of every alarm within eight hours of the alarm. The permittee shall alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following: [§63.1350(m)(11)]
i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions; [§63.1350(m)(11)(i)]
ii) Sealing off defective bags or filter media; [§63.1350(m)(11)(ii)]
iii) Replacing defective bags or filter media or otherwise repairing the control device; [§63.1350(m)(11)(iii)]
iv) Sealing off a defective fabric filter compartment; [§63.1350(m)(11)(iv)]
v) Cleaning the BLDS probe or otherwise repairing the BLDS; or [§63.1350(m)(11)(v)]
vi) Shutting down the process producing the PM emissions. [§63.1350(m)(11)(vi)]

8. *Continuous Flow Rate Monitoring System.* The permittee shall install, operate, calibrate, and maintain instruments, according to the requirements in §63.1350(n)(1) through (10), for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a lb/on of clinker unit. [§63.1350(n)]
a) The permittee shall install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the PM CEMS, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. [§63.1350(n)(1)]
b) The flow rate monitoring system shall be designed to measure the exhaust flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust flow rate. [§63.1350(n)(2)]
c) The flow rate monitoring system shall be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in §63.1350(n)(1). [§63.1350(n)(4)]

d) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system shall be compatible with the output signal of the flow rate sensors used in the monitoring system. [§63.1350(n)(5)]
e) The flow rate monitoring system shall be designed to complete a minimum of one cycle of operation for each successive 15-minute period. [§63.1350(n)(6)]
f) The flow rate sensor shall have provisions to determine the daily zero and upscale calibration drift (CD) (see §3.1 and §8.3 of Performance Specification 2 in NSPS Appendix B for a discussion of CD). [§63.1350(n)(7)]
    i) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70 percent of span). [§63.1350(n)(7)(i)]
    ii) The absolute value of the difference between the flow monitor response and the reference signal shall be equal to or less than three percent of the flow monitor span. [§63.1350(n)(7)(ii)]
g) The permittee shall perform an initial relative accuracy test of the flow rate monitoring system according to §8.2 of Performance Specification 6 of NSPS Appendix B with the following exceptions: [§63.1350(n)(8)]
    i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a CEMS. [§63.1350(n)(8)(i)]
    ii) The relative accuracy of the flow rate monitoring system shall be no greater than ten percent of the mean value of the reference method data. [§63.1350(n)(8)(ii)]
h) The permittee shall verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in §63.1350(n)(8). [§63.1350(n)(9)]
i) The permittee shall operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). [§63.1350(n)(10)]

9. The permittee shall refer to §63.1350(o) for information regarding obtaining approval of alternate monitoring requirements.
10. *Development and submittal (upon request) of monitoring plans.* If the permittee demonstrates compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, the permittee shall develop a site-specific monitoring plan according to the requirements in §63.1350(p)(1) through (4). This requirement also applies if the permittee petitions the EPA Administrator for alternative monitoring parameters under §63.1350(o) and §63.8(f). If the permittee uses a BLDS, the permittee shall also meet the requirements specified in §63.1350(p)(5). [§63.1350(p)]
    a) For each CMS required in §63.1350, the permittee shall develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses §63.1350(p)(1)(i) through (iii). The permittee shall submit this site-specific monitoring plan, if requested, at least 30 days before the initial performance evaluation of the CMS. [§63.1350(p)(1)]
        i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); [§63.1350(p)(1)(i)]

ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and [§63.1350(p)(1)(ii)]
iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations). [§63.1350(p)(1)(iii)]

b) In the site-specific monitoring plan, the permittee shall also address: [§63.1350(p)(2)]
i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii); [§63.1350(p)(2)(i)]
ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and [§63.1350(p)(2)(ii)]
iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i). [§63.1350(p)(2)(iii)]

c) The permittee shall conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. [§63.1350(p)(3)]

d) The permittee shall operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. [§63.1350(p)(4)]

e) *BLDS monitoring plan.* Each monitoring plan shall describe the items in §63.1350(p)(5)(i) through (v). At a minimum, the permittee shall retain records related to the site-specific monitoring plan and information discussed in §63.1350(m)(1) through (4), (10) and (11) for a period of five years, with at least the first two years on-site; [§63.1350(p)(5)]
i) Installation of the BLDS; [§63.1350(p)(5)(i)]
ii) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established; [§63.1350(p)(5)(ii)]
iii) Operation of the BLDS, including quality assurance procedures; [§63.1350(p)(5)(iii)]
iv) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list; [§63.1350(p)(5)(iv)]
v) How the BLDS output will be recorded and stored. [§63.1350(p)(5)(v)]

Compliance Dates:

1. The compliance date for existing sources for all the requirements that became effective on February 12, 2013, except for the open clinker pile requirements will be September 9, 2015. [§63.1351(c)]
2. The compliance date for new sources is February 12, 2013, or startup, whichever is later. [§63.1351(d)]
3. The compliance date for existing sources with the requirements for open clinker storage piles in §63.1343(c) is February 12, 2014. [§63.1351(e)]

Notifications:

1. The notification provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to are listed in Table 1 of MACT LLL. If Missouri requires a notice that contains all of the information required in a notification listed in §63.1353, the permittee may send the Administrator a copy of the notice sent to Missouri to satisfy the requirements of §63.1353 for that notification. [§63.1353(a)]
2. The permittee shall comply with the notification requirements in §63.9 as follows: [§63.1353(b)]
   a) Initial notifications as required by §63.9(b) through (d). For the purposes of MACT LLL, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under 40 CFR Part 70 and has received delegation of authority from

the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. [§63.1353(b)(1)]

b) Notification of performance tests, as required by §§63.7 and 63.9(e). [§63.1353(b)(2)]
c) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f). [§63.1353(b)(3)]
d) Notification, as required by §63.9(g), of the date that the CEMS performance evaluation required by §63.8(e) is scheduled to begin. [§63.1353(b)(4)]
e) Notification of compliance status, as required by §63.9(h). [§63.1353(b)(5)]
f) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of §§63.7(b) and 63.9(e) do not apply to retesting required for exceedances under MACT LLL. [§63.1353(b)(6)]

Recordkeeping:

1. The permittee shall maintain files of all information (including all reports and notifications) required by §63.1355 recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]
2. The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (3); and [§63.1355(b)]
   a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
   b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
   c) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]
3. In addition to the recordkeeping requirements in §63.1355(b), for each affected source equipped with a CMS, the permittee shall maintain all records required by §63.10(c). [§63.1355(c)]
4. The permittee shall retain annual records of the amount of CKD which is removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system. [§63.1355(d)]
5. The permittee shall retain records of the daily clinker production rates and kiln feed rates. [§63.1355(e)]
6. The permittee shall retain records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period. [§63.1355(f)]
7. The permittee shall retain records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. [§63.1355(g)(1)]

8. The permittee shall retain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.1355(g)(2)]
9. For each exceedance from an emissions standard or established operating parameter limit, the permittee shall retain records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions.
10. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
11. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The reporting provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply are listed in Table 1 of MACT LLL. If Missouri requires a report that contains all of the information required in a report listed in §63.1354, the permittee may send the Administrator a copy of the report sent to Missouri to satisfy the requirements of §63.1354 for that report. [§63.1354(a)]
2. The permittee shall comply with the reporting requirements specified in §63.10 of the general provisions of 40 CFR Part 63, Subpart A as follows: [§63.1354(b)]
   a) As required by §63.10(d)(2), the permittee shall report the results of performance tests as part of the notification of compliance status. [§63.1354(b)(1)]
   b) As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]
   c) As required by § 63.10(d)(4), if the permittee is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i), the permittee shall submit such reports by the dates specified in the written extension of compliance. [§63.1354(b)(3)]
   d) As required by § 63.10(e)(2), the permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by §63.8(e). The permittee shall submit the report simultaneously with the results of the performance test. [§63.1354(b)(6)]
   e) As required by § 63.10(e)(2), if the permittee is using a COMS to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6), the permittee shall report the results of the COMS performance evaluation conducted under §63.8(e). [§63.1354(b)(7)]
   f) As required by §63.10(e)(3), for each affected source equipped with a CEMS, the permittee shall submit an excess emissions and CEMS performance report for any event when the CEMS data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit. [§63.1354(b)(8)]
   g) The permittee shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [§63.1354(b)(9)]
      i) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). [§63.1354(b)(9)(v)]
      ii) For each PM CEMS, within 60 days after the reporting periods, the permittee shall submit reports to the EPA's WebFIRE database by using the Compliance and Emissions Data

Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with the EPA's reporting form output format. For each reporting period, the reports shall include all of the calculated 30-operating day rolling average values derived from the CEMS. [§63.1354(b)(9)(vi)]

iii) In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions. [§63.1354(b)(9)(vii)]

h) If the total continuous monitoring system downtime for any CEMS or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and CMS performance report along with the summary report. [§63.1354(b)(10)]

3. Reporting a failure to meet a standard due to a malfunction. For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, the permittee shall report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report shall contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report shall list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report shall also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction. [§63.1354(c)]
4. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
5. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 028

Emission Unit MS-07

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for HAPs for Stationary Reciprocating Internal Combustion Engines

Emission Unit	Description	Engine Rating (HP)	Date of Construction
MS-07	Emergency Generator[1]	1214	2008

[1]A new stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004 shall comply with the applicable requirements in MACT ZZZZ upon startup. [§63.6595(a)(3)]

Applicability:

1. *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. [§63.6590(a)]
   a) *New stationary RICE.* [§63.6590(a)(2)]

i) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if the permittee commenced construction of the stationary RICE on or after June 12, 2006. [§63.6590(a)(2)(ii)]

2. *Stationary RICE subject to limited requirements.* [§63.6590(b)]
   a) An affected source which meets either of the criteria in §63.6590(b)(1)(i) through (ii) does not have to meet the requirements of this and of 40 CFR Part 63, Subpart A except for the initial notification requirements of §63.6645(f). [§63.6590(b)(1)]
      i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6590(b)(1)(i)]

Initial Notification:

If the permittee is required to submit an Initial Notification but is otherwise not affected by the requirements of MACT ZZZZ, in accordance with §63.6590(b), the notification should include the information in §63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). [§63.6645(f)]

PERMIT CONDITION 029

Emission Units MS-06A, MS-06B, and MS-08

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for HAPs for Stationary Reciprocating Internal Combustion Engines[1]

Emission Unit	Description	Engine Rating (HP)	Date of Construction
MS-06A	Standby Emergency Generator	350	1965
MS-06B	Standby Emergency Generator	450	1985
MS-08	Emergency Fire Pump	240	2003

[1]An existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions shall comply with the applicable requirements in MACT ZZZZ no later than May 3, 2013. [§63.6595(a)(1)]

Applicability:

1. *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. [§63.6590(a)]
   a) *Existing stationary RICE.* [§63.6590(a)(1)]
      i) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if the permittee commenced construction or reconstruction of the stationary RICE before June 12, 2006. [§63.6590(a)(1)(ii)]

Operating Limitations:

An existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions shall comply with the operating limitations in Table 2c to MACT ZZZZ. [§63.6602]

Table 2c to MACT ZZZZ — *Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions*

Affected Source	Operating Limitations – except during periods of startup	Operating Limitation – during periods of startup
Emergency stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of MACT ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee shall report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
[2]The permittee has the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of MACT ZZZZ.
[3]The permittee can petition the Administrator pursuant to the requirements of §63.6(g) for alternative work practices.

General Standards:

1. The permittee shall be in compliance with the operating limitations and other requirements in MACT ZZZZ at all times. [§63.6605(a)]
2. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.6605(b)]

Monitoring:

1. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions for each of the following stationary RICE: [§63.6625(e)]
   a) Existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions; [§63.6625(e)(2)]
2. For each existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the permittee shall install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
3. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the operating standards applicable to all times other than startup in Table 2c to MACT ZZZZ apply. [§63.6625(h)]

4. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c to MACT ZZZZ. The oil analysis shall be performed at the same frequency specified for changing the oil in Table 2c to MACT ZZZZ. The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two business days or before commencing operation, whichever is later. The permittee shall retain records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine. [§63.6625(i)]

Compliance:

1. The permittee shall demonstrate continuous compliance with each operating limitation and other requirement in Table 2c to MACT ZZZZ according to methods specified in Table 6 to MACT ZZZZ. [§63.6640(a)]
2. The permittee shall report each instance in which the permittee did not meet each operating limitation in Table 2c to MACT ZZZZ. These instances are deviations from the operating limitations in MACT ZZZZ. [§63.6640(b)]
3. The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]
4. The permittee shall operate the emergency stationary RICE according to the requirements in §63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under MACT ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under MACT ZZZZ and shall meet all requirements for non-emergency engines. [§63.6640(f)]
   a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
   b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in §63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§63.6640(f)(2)]
      i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]

ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§63.6640(f)(2)(ii)]

iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]

c) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(3)]

Table 6 to MACT ZZZZ — *Continuous Compliance With Operating Limitations, Work Practices, and Management Practices*

Affected Source	Complying with…	Continuous Compliance Requirement
Existing emergency stationary RICE ≤500 HP located at a major source of HAP	Work or Management practices	Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
		Develop and follow a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Notifications:

1. The permittee shall submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply by the dates specified for each of the following; [§63.6645(a)]
   a) This requirement does not apply to existing stationary emergency RICE that are not subject to any numerical emission standards. [§63.6645(a)(5)]

Recordkeeping:

1. The permittee shall keep the records described in §63.6655(a)(1) through (5). [§63.6655(a)]
   a) A copy of each notification and report submitted to comply with MACT ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in §63.10(b)(2)(xiv). [§63.6655(a)(1)]
   b) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
   c) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii). [§63.6655(a)(3)]
   d) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]

e) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.6655(a)(5)]

2. The permittee shall keep the records required in Table 6 of MACT ZZZZ to show continuous compliance with each applicable operating limitation. [§63.6655(d)]
3. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan for any of the following stationary RICE; [§63.6655(e)]
   a) An existing stationary emergency RICE. [§63.6655(e)(2)]
4. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]
5. Records shall be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
6. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
7. The permittee shall keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

General Provisions:

The permittee shall refer to Table 8 to MACT ZZZZ for 40 CFR Part 63, Subpart A applicability.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. These reports shall include:
   a) Company name and address. [§63.6650(c)(1)]
   b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [§63.6650(c)(2)]
   c) Date of report and beginning and ending dates of the reporting period. [§63.6650(c)(3)]
   d) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period. The report shall also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction. [§63.6650(c)(4)]
   e) If there are no deviations from any applicable operating limitations, a statement that there were no deviations from the operating limitations during the reporting period. [§63.6650(c)(5)]

f) The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [§63.6650(d)(1)]
g) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [§63.6650(d)(2)]

3. Emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) shall submit an annual report according to the following requirements: [§63.6650(h)]
   a) The report shall contain the following information: [§63.6650(h)(1)]
      i) Company name and address where the engine is located. [§63.6650(h)(1)(i)]
      ii) Date of the report and beginning and ending dates of the reporting period. [§63.6650(h)(1)(ii)]
      iii) Engine site rating and model year. [§63.6650(h)(1)(iii)]
      iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. [§63.6650(h)(1)(iv)]
      v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6650(h)(1)(v)]
      vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6650(h)(1)(vi)]
      vii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period. [§63.6650(h)(1)(viii)]
      viii) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken. [§63.6650(h)(1)(ix)]
   b) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year. [§63.6650(h)(2)]
   c) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to MACT ZZZZ is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13. [§63.6650(h)(3)]

PERMIT CONDITION 030

Emission Units SF-02A, SF-02B, SF-03A – SF-03D, SF-60A, SF-60B, SF-62A, and SF-62B

10 CSR 10-6.080 Emission Standards for HAPs

40 CFR Part 61, Subpart FF – National Emission Standard for Benzene Waste Operations

Emission Unit	Description
SF-02A and SF-02B	HWF Blend Tanks w/ Carbon Filter (6) – 25,000 gallons each
SF-03A and SF-03B	HWF Burn Tanks w/ Carbon Filter (2) – 75,000 gallons each
SF-03C and SF-03D	LHWDF Tanks – (1) 75,000 gallons and (1) 150,000 gallons
SF-60A and SF-60B	Supplemental Fuel Storage Tank - Railpad – 75,000 gallons
SF-62A and SF-62B	Supplemental Fuel Storage Tank - Railpad – 75,000 gallons

General Standards:

1. The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than ten percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than ten percent. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are as follows: [§61.342(a)]
   a) Wastes that are exempted from control under §61.342(c)(2) and (3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than ten percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than ten percent. [§61.342(a)(1)]
   b) The benzene in a material subject to NESHAP FF that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than ten percent. [§61.342(a)(2)]
   c) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater are not included in the calculation of total annual benzene quantity for that facility. Wastes generated by remediation activities are subject to the requirements of §61.342(c) through (h). If the facility is managing remediation waste generated offsite, the benzene in this waste shall be included in the calculation of total annual benzene quantity in facility waste, if the waste streams have an annual average water content greater than ten percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than ten percent. [§61.342(a)(3)]
   d) The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in §61.355(c)(1)(i)(C). [§61.342(a)(4)]
2. The permittee shall be in compliance with the requirements of §61.342(c) through (h) no later than 90 days following the effective date, unless a waiver of compliance has been obtained under §61.11, or by the initial startup for a new source with an initial startup after the effective date. [§61.342(b)]
   a) An existing source unable to comply with the rule within the required time may request a waiver of compliance under §61.10. [§61.342(b)(1)]
   b) As part of the waiver application, the permittee shall submit to the Administrator a plan under §61.10(b)(3) that is an enforceable commitment to obtain environmental benefits to mitigate the benzene emissions that result from extending the compliance date. The plan shall include the following information: [§61.342(b)(2)]
      i) A description of the method of compliance, including the control approach, schedule for installing controls, and quantity of the benzene emissions that result from extending the compliance date; [§61.342(b)(2)(i)]
      ii) If the control approach involves a compliance strategy designed to obtain integrated compliance with multiple regulatory requirements, a description of the other regulations involved and their effective dates; and [§61.342(b)(2)(ii)]
      iii) A description of the actions to be taken at the facility to obtain mitigating environmental benefits, including how the benefits will be obtained, the schedule for these actions, and an estimate of the quantifiable benefits that directly result from these actions. [§61.342(b)(2)(iii)]
3. The permittee shall manage and treat the facility waste as follows: [§61.342(c)]

a) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than ten percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the permittee shall: [§61.342(c)(1)]
   i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348. [§61.342(c)(1)(i)]
   ii) Comply with the standards specified in §61.343, §61.345, and §61.346 for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with §61.342(c)(1)(i). [§61.342(c)(1)(ii)]
   iii) Each waste management unit used to manage or treat waste streams that will be recycled to a process shall comply with the standards specified in §61.343, §61.345, and §61.346. Once the waste stream is recycled to a process, including to a tank used for the storage of production process feed, product, or product intermediates, unless this tank is used primarily for the storage of wastes, the material is no longer subject to §61.342(c). [§61.342(c)(1)(iii)]

b) A waste stream is exempt from §61.342(c)(1) provided that the permittee demonstrates initially and, thereafter, at least once per year that the flow-weighted annual average benzene concentration for the waste stream is less than ten ppmw as determined by the procedures specified in §61.355(c)(2) or (3). [§61.342(c)(2)]

c) A waste stream is exempt from §61.342(c)(1) provided that the permittee demonstrates initially and, thereafter, at least once per year that the conditions specified in either §61.342(c)(3)(i) or (ii) are met. [§61.342(c)(3)]
   i) The waste stream is process wastewater that has a flow rate less than 0.02 L/min (0.005 gal/min) or an annual wastewater quantity of less than ten Mg/yr (11 tpy); or [§61.342(c)(3)(i)]
   ii) All of the following conditions are met: [§61.342(c)(3)(ii)]
      (1) The permittee does not choose to exempt process wastewater under §61.342(c)(3)(i), [§61.342(c)(3)(ii)(A)]
      (2) The total annual benzene quantity in all waste streams chosen for exemption in §61.342(c)(3)(ii) does not exceed 2.0 Mg/yr (2.2 tpy) as determined in the procedures in §61.355(j), and [§61.342(c)(3)(ii)(B)]
      (3) The total annual benzene quantity in a waste stream chosen for exemption, including process unit turnaround waste, is determined for the year in which the waste is generated. [§61.342(c)(3)(ii)(C)]

4. As an alternative to the requirements specified in §61.342(c) and (e), the permittee may elect to manage and treat the facility waste as follows: [§61.342(d)]
   a) The permittee shall manage and treat facility waste other than process wastewater in accordance with the requirements of §61.342(c)(1). [§61.342(d)(1)]
   b) The permittee shall manage and treat process wastewater in accordance with the following requirements: [§61.342(d)(2)]
      i) Process wastewater shall be treated to achieve a total annual benzene quantity from facility process wastewater less than one Mg/yr (1.1 tpy). Total annual benzene from facility process wastewater shall be determined by adding together the annual benzene quantity at the point of waste generation for each untreated process wastewater stream plus the annual benzene quantity exiting the treatment process for each process wastewater stream treated in accordance with the requirements of §61.342(c)(1)(i). [§61.342(d)(2)(i)]
      ii) Each treated process wastewater stream identified in §61.342(d)(2)(i) shall be managed and treated in accordance with §61.342(c)(1). [§61.342(d)(2)(ii)]

iii) Each untreated process wastewater stream identified in §61.342(d)(2)(i) is exempt from the requirements of §61.342(c)(1). [§61.342(d)(2)(iii)]

5. As an alternative to the requirements specified in §61.342(c) and (d), the permittee may elect to manage and treat the facility waste as follows: [§61.342(e)]
   a) The permittee shall manage and treat facility waste with a flow-weighted annual average water content of less than ten percent in accordance with the requirements of §61.342(c)(1); and [§61.342(e)(1)]
   b) The permittee shall manage and treat facility waste (including remediation and process unit turnaround waste) with a flow-weighted annual average water content of ten percent or greater, on a volume basis as total water, and each waste stream that is mixed with water or wastes at any time such that the resulting mixture has an annual water content greater than ten percent, in accordance with the following: [§61.342(e)(2)]
      i) The benzene quantity for the wastes described in §61.342(e)(2) shall be equal to or less than 6.0 Mg/yr (6.6 tpy), as determined in §61.355(k). Wastes as described in §61.342(e)(2) that are transferred offsite shall be included in the determination of benzene quantity as provided in §61.355(k). The provisions of §61.342(f) shall not apply if the permittee elects to comply with the provisions of §61.342(e). [§61.342(e)(2)(i)]
      ii) The determination of benzene quantity for each waste stream defined in §61.342(e)(2) shall be made in accordance with §61.355(k). [§61.342(e)(2)(ii)]
6. Rather than treating the waste onsite, the permittee may elect to comply with §61.342(c)(1)(i) by transferring the waste offsite to another facility where the waste is treated in accordance with the requirements of §61.342(c)(1)(i). The facility transferring the waste shall: [§61.342(f)]
   a) Comply with the standards specified in §61.343, §61.345, and §61.346 for each waste management unit that receives or manages the waste prior to shipment of the waste offsite. [§61.342(f)(1)]
   b) Include with each offsite waste shipment a notice stating that the waste contains benzene which is required to be managed and treated in accordance with the provisions of NESHAP FF. [§61.342(f)(2)]
7. Compliance with NESHAP FF will be determined by review of facility records and results from tests and inspections using methods and procedures specified in §61.355. [§61.342(g)]
8. Permission to use an alternative means of compliance to meet the requirements of §§61.342, 61.343, 61.345, 61.346, and 61.348 through 61.351 may be granted by the Administrator as provided in §61.353. [§61.342(h)]

Tank Standards:

1. Except as provided in §61.343(b) and in §61.351, the permittee shall meet the standards in §61.343(a)(1) or (2) for each tank in which the waste stream is placed in accordance with §61.342(c)(1)(ii). The standards in §61.343 apply to the treatment and storage of the waste stream in a tank, including dewatering. [§61.343(a)]
   a) The permittee shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. [§61.343(a)(1)]
      i) The fixed-roof shall meet the following requirements: [§61.343(a)(1)(i)]
         (1) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.343(a)(1)(i)(A)]

(2) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. [§61.343(a)(1)(i)(B)]

(3) If the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure, then §61.343(a)(1)(i)(B) does not apply to any opening that meets all of the following conditions: [§61.343(a)(1)(i)(C)]

(a) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.343(a)(1)(i)(C)(1)]

(b) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.343(a)(1)(i)(C)(2)]

(c) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure. [§61.343(a)(1)(i)(C)(3)]

ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §61.349. [§61.343(a)(1)(ii)]

b) The permittee shall install, operate, and maintain an enclosure and closed-vent system that routes all organic vapors vented from the tank, located inside the enclosure, to a control device in accordance with the requirements specified in §61.343(e). [§61.343(a)(2)]

2. For a tank that meets all the conditions specified in §61.343(b)(1), the permittee may elect to comply with §61.343(b)(2) as an alternative to the requirements specified in §61.343(a)(1). [§61.343(b)]

a) The waste managed in the tank complying with §61.343(b)(2) shall meet all of the following conditions: [§61.343(b)(1)]

i) Each waste stream managed in the tank shall have a flow-weighted annual average water content less than or equal to ten percent water, on a volume basis as total water. [§61.343(b)(1)(i)]

ii) The waste managed in the tank either: [§61.343(b)(1)(ii)]

(1) Has a maximum organic vapor pressure less than 5.2 kPa (0.75 psi); [§61.343(b)(1)(ii)(A)]

(2) Has a maximum organic vapor pressure less than 27.6 kPa (4.0 psi) and is managed in a tank having design capacity less than 151 m^3 (40,000 gal); or [§61.343(b)(1)(ii)(B)]

(3) Has a maximum organic vapor pressure less than 76.6 kPa (11.1 psi) and is managed in a tank having a design capacity less than 75 m^3 (20,000 gal). [§61.343(b)(1)(ii)(C)]

b) The permittee shall install, operate, and maintain a fixed roof as specified in §61.343(a)(1)(i). [§61.343(b)(2)]

c) For each tank complying with §61.343(b), one or more devices which vent directly to the atmosphere may be used on the tank provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the tank or cover resulting from filling or emptying the tank, diurnal temperature changes, atmospheric pressure changes or malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials. [§61.343(b)(3)]

3. Each fixed-roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly. [§61.343(c)]

4. Except as provided in §61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification. [§61.343(d)]
5. Each tank controlling air pollutant emissions by using an enclosure vented through a closed-vent system to a control device shall meet the requirements specified in §61.343(e)(1) through (4). [§61.343(e)]
   a) The tank shall be located inside a total enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" in §52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The permittee shall perform the verification procedure for the enclosure as specified in §5.0 of Procedure T initially when the enclosure is first installed and, thereafter, annually. A facility that has conducted an initial compliance demonstration and that performs annual compliance demonstrations in accordance with the requirements for Tank Level 2 control requirements §264.1084(i) or §265(i) is not required to make repeat demonstrations of initial and continuous compliance for the purposes of NESHAP FF. [§61.343(e)(1)]
   b) The enclosure shall be vented through a closed-vent system to a control device that is designed and operated in accordance with the standards for control devices specified in §61.349. [§61.343(e)(2)]
   c) Safety devices, as defined in NESHAP FF, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of §61.343(e)(1) and (2). [§61.343(e)(3)]
   d) The closed-vent system shall be designed and operated in accordance with the requirements of §61.349. [§61.343(e)(4)]

Treatment Process Standards:

1. Except as provided in §61.348(a)(5), the permittee shall treat the waste stream in accordance with the following requirements: [§61.348(a)]
   a) The permittee shall design, install, operate, and maintain a treatment process that: [§61.348(a)(1)]
      i) Destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene. [§61.348(a)(1)(iii)]
   b) The permittee may aggregate or mix together individual waste streams to create a combined waste stream for the purpose of facilitating treatment of waste to comply with the requirements of §61.348(a)(1) except as provided in §61.348(a)(5). [§61.348(a)(4)]
   c) If the permittee aggregates or mixes any combination of process wastewater, product tank drawdown, or landfill leachate subject to §61.342(c)(1) together with other waste streams to create a combined waste stream for the purpose of facilitating management or treatment of waste in a wastewater treatment system, then the wastewater treatment system shall be operated in accordance with §61.348(b). These provisions apply to above-ground wastewater treatment systems as well as those that are at or below ground level. [§61.348(a)(5)]
2. Except for facilities complying with §61.342(e), the permittee that aggregates or mixes individual waste streams as defined in §61.348(a)(5) for management and treatment in a wastewater treatment system shall comply with the following requirements: [§61.348(b)]

a) The permittee shall design and operate each waste management unit that comprises the wastewater treatment system in accordance with the appropriate standards specified in §61.343, §61.345, and §61.346. [§61.348(b)(1)]
b) The provisions of §61.348(b)(1) do not apply to any waste management unit that the permittee demonstrates to meet the following conditions initially and, thereafter, at least once per year: [§61.348(b)(2)]
    i) The benzene content of each waste stream entering the waste management unit is less than ten ppmw on a flow-weighted annual average basis as determined by the procedures specified in §61.355(c); and [§61.348(b)(2)(i)]
    ii) The total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units comprising the facility wastewater treatment systems is less than one Mg/yr (1.1 tpy). For this determination, total annual benzene quantity shall be calculated as follows: [§61.348(b)(2)(ii)]
        (1) The total annual benzene quantity shall be calculated as the sum of the individual benzene quantities determined at each location where a waste stream first enters an exempt waste management unit. The benzene quantity discharged from an exempt waste management unit shall not be included in this calculation. [§61.348(b)(2)(ii)(A)]

3. The permittee shall demonstrate that each treatment process or wastewater treatment system unit, except as provided in §61.348(d), achieves the appropriate conditions specified in §61.348(a) or (b) in accordance with the following requirements: [§61.348(c)]
    a) Engineering calculations in accordance with requirements specified in §61.356(e); or [§61.348(c)(1)]
    b) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. [§61.348(c)(2)]
4. A treatment process or waste stream is in compliance with the requirements of NESHAP FF and exempt from the requirements of §61.348(c) provided that the permittee documents that the treatment process or waste stream is in compliance with other regulatory requirements as follows: [§61.348(d)]
    a) The treatment process is a hazardous waste incinerator for which the permittee has been issued a final permit under 40 CFR Part 270 and complies with the requirements of 40 CFR Part 264, Subpart O; [§61.348(d)(1)]
5. Except as specified in §61.348(e)(3), if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance. [§61.348(e)]
    a) Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly. [§61.348(e)(1)]
    b) Except as provided in §61.350, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. [§61.348(e)(2)]
    c) If the cover and closed-vent system operate such that the treatment process and wastewater treatment system unit are maintained at a pressure less than atmospheric pressure, the permittee may operate the system with an opening that is not sealed and kept closed at all times if the following conditions are met: [§61.348(e)(3)]
        i) The purpose of the opening is to provide dilution air to reduce the explosion hazard; [§61.348(e)(3)(i)]

ii) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and [§61.348(e)(3)(ii)]
iii) The pressure is monitored continuously to ensure that the pressure in the treatment process and wastewater treatment system unit remain below atmospheric pressure. [§61.348(e)(3)(iii)]

6. Except for treatment processes complying with §61.348(d), the Administrator may request at any time that the permittee demonstrate that a treatment process or wastewater treatment system unit meets the applicable requirements specified in §61.348(a) or (b) by conducting a performance test using the test methods and procedures as required in §61.355. [§61.348(f)]
7. Each treatment process or wastewater treatment system unit that is used to comply with the provisions of §61.348 shall be monitored the unit in accordance with the applicable requirements in §61.354. [§61.348(g)]

Closed-vent System and Control Device Standards:

1. For each closed-vent system and control device used to comply with standards in accordance with §61.343, §61.345, §61.346, and §61.348, the permittee shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements: [§61.349(a)]
   a) The closed-vent system shall: [§61.349(a)(1)]
      i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). [§61.349(a)(1)(i)]
      ii) Vent systems that contain any bypass line that could divert the vent stream away from a control device used to comply with the provisions of NESHAP FF shall install, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow away from the control device at least once every 15 minutes, except as provided in §61.349(a)(1)(ii)(B). [§61.349(a)(1)(ii)]
         (1) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere. [§61.349(a)(1)(ii)(A)]
         (2) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. [§61.349(a)(1)(ii)(B)]
      iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. [§61.349(a)(1)(iii)]
      iv) For each closed-vent system complying with §61.349(a), one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials. [§61.349(a)(1)(iv)]
   b) The control device shall be designed and operated in accordance with the following conditions: [§61.349(a)(2)]
      i) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) shall meet one of the following conditions: [§61.349(a)(2)(i)]

(1) Reduce the organic emissions vented to it by 95 weight percent or greater; [§61.349(a)(2)(i)(A)]
(2) Achieve a total organic compound concentration of 20 ppmv (as the sum of the concentrations for individual compounds using Method 18) on a dry basis corrected to three percent O_2; or [§61.349(a)(2)(i)(B)]
(3) Provide a minimum residence time of 0.5 seconds at a minimum temperature of 760°C (1,400°F). If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. [§61.349(a)(2)(i)(C)]

ii) A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [§61.349(a)(2)(ii)]

iii) A control device other than those described in §61.349(a)(2)(i) and (ii) may be used provided that the following conditions are met: [§61.349(a)(2)(iv)]
(1) The device shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. [§61.349(a)(2)(iv)(A)]
(2) The permittee shall develop test data and design information that documents the control device will achieve an emission control efficiency of either 95 percent or greater for organic compounds or 98 percent or greater for benzene. [§61.349(a)(2)(iv)(B)]
(3) The permittee shall identify: [§61.349(a)(2)(iv)(C)]
(a) The critical operating parameters that affect the emission control performance of the device; [§61.349(a)(2)(iv)(C)(1)]
(b) The range of values of these operating parameters that ensure the emission control efficiency specified in §61.349(a)(2)(iv)(A) is maintained during operation of the device; and [§61.349(a)(2)(iv)(C)(2)]
(c) How these operating parameters will be monitored to ensure the proper operation and maintenance of the device. [§61.349(a)(2)(iv)(C)(3)]
(4) The permittee shall submit the information and data specified in §61.349(a)(2)(iv)(B) and (C) to the Administrator prior to operation of the alternative control device. [§61.349(a)(2)(iv)(D)]
(5) The Administrator will determine, based on the information submitted under §61.349(a)(2)(iv)(D), if the control device subject to §61.349(a)(2)(iv) meets the requirements of §61.349. The control device subject to §61.349(a)(2)(iv) may be operated prior to receiving approval from the Administrator. However, if the Administrator determines that the control device does not meet the requirements of §61.349, the facility may be subject to enforcement action beginning from the time the control device began operation. [§61.349(a)(2)(iv)(E)]

2. Each closed-vent system and control device used to comply with NESHAP FF shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device. [§61.349(b)]
3. The permittee shall demonstrate that each control device, achieves the appropriate conditions specified in §61.349(a)(2) by using one of the following methods: [§61.349(c)]
a) Engineering calculations in accordance with requirements specified in §61.356(f); or [§61.349(c)(1)]

b) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. [§61.349(c)(2)]

4. The Administrator may request at any time for the permittee to demonstrate that a control device meets the applicable conditions specified in §61.349(a)(2) by conducting a performance test using the test methods and procedures as required in §61.355, and for control devices subject to §61.349(a)(2)(iv), the Administrator may specify alternative test methods and procedures, as appropriate. [§61.349(e)]
5. Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. [§61.349(f)]
6. Except as provided in §61.350, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than five calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. [§61.349(g)]
7. Each control device that is used to comply with the provisions of §61.354 shall be monitored in accordance with §61.354(c). [§61.349(h)]

Delay of Repair Standards:

1. Delay of repair of facilities or units that are subject to the provisions of NESHAP FF will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. [§61.350(a)]
2. Repair of such equipment shall occur before the end of the next facility or unit shutdown. [§61.350(b)]

Alternative Tank Standards:

The permittee shall refer to §61.351 for information regarding alternative tank standards under NESHAP FF.

Alternative Emission Limitations:

The permittee shall refer to §61.353 for information regarding alternative emission limitations under NESHAP FF.

Monitoring:

1. Except for a treatment process or waste stream complying with §61.348(d), the permittee shall monitor each treatment process or wastewater treatment system unit to ensure the unit is properly operated and maintained by the following monitoring procedure: [§61.354(a)]
   a) Install, calibrate, operate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter (or parameters) for the treatment process or wastewater treatment system unit that indicates proper system operation. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the unit is operating properly. [§61.354(a)(2)]
2. If the permittee complies with the requirements of §61.348(b), then the permittee shall monitor each wastewater treatment system to ensure the unit is properly operated and maintained by the appropriate monitoring procedure as follows: [§61.354(b)]

a) For the first exempt waste management unit in each waste treatment train, measure the flow rate, using the procedures of §61.355(b), and the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in §61.355(c)(3). [§61.354(b)(1)]

3. The permittee subject to the requirements in §61.349 shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly. [§61.354(c)]
   a) For a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± one percent of the temperature being monitored in °C or ±0.5°C, whichever is greater. The temperature sensor shall be installed at a representative location in the combustion chamber. [§61.354(c)(4)]
   b) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr), a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used. [§61.354(c)(5)]
   c) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either: [§61.354(c)(7)]
      i) A monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the carbon bed; or [§61.354(c)(7)(i)]
      ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle. [§61.354(c)(7)(ii)]
   d) For a vapor recovery system other than a condenser or carbon adsorption system, a monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the control device. [§61.354(c)(8)]
   e) For a control device subject to the requirements of §61.349(a)(2)(iv), devices to monitor the parameters as specified in §61.349(a)(2)(iv)(C). [§61.354(c)(9)]
4. For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, the permittee may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. [§61.354(d)]
5. An alternative operation or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications. [§61.354(e)]

6. Each closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provisions of NESHAP FF shall do the following: [§61.354(f)]
   a) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closure mechanism required under §61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. [§61.354(f)(1)]
   b) Visually inspect the readings from each flow monitoring device required by §61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required. [§61.354(f)(2)]
7. Each system for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the unit to ensure that it is less than atmospheric pressure. [§61.354(g)]

Test Methods and Procedures:

The permittee shall refer to §61.355 for test methods and procedures under NESHAP FF.

Recordkeeping:

1. The permittee shall comply with the recordkeeping requirements of §61.356. Each record shall be maintained in a readily accessible location at the facility site for a period not less than five years from the date the information is recorded unless otherwise specified. [§61.356(a)]
2. The permittee shall maintain records that identify each waste stream at the facility subject to NESHAP FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with NESHAP FF. In addition the permittee shall maintain the following records: [§61.356(b)]
   a) For each waste stream not controlled for benzene emissions in accordance with NESHAP FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.356(b)(1)]
   b) For each waste stream exempt from §61.342(c)(1) in accordance with §61.342(c)(3), the records shall include: [§61.356(b)(2)]
      i) All measurements, calculations, and other documentation used to determine that the continuous flow of process wastewater is less than 0.02 L/min (0.005 gpm) or the annual waste quantity of process wastewater is less than ten Mg/yr (11 tpy) in accordance with §61.342(c)(3)(i), or [§61.356(b)(2)(i)]
      ii) All measurements, calculations, and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr (2.2 tpy) in accordance with §61.342(c)(3)(ii). [§61.356(b)(2)(ii)]
   c) For each facility where process wastewater streams are controlled for benzene emissions in accordance with §61.342(d), the records shall include for each treated process wastewater stream all measurements, calculations, and other documentation used to determine the annual benzene quantity in the process wastewater stream exiting the treatment process. [§61.356(b)(3)]
   d) For each facility where waste streams are controlled for benzene emissions in accordance with §61.342(e), the records shall include for each waste stream all measurements, including the

locations of the measurements, calculations, and other documentation used to determine that the total benzene quantity does not exceed 6.0 Mg/yr (6.6 tpy). [§61.356(b)(4)]

e) For each facility where the annual waste quantity for process unit turnaround waste is determined in accordance with §61.355(b)(5), the records shall include all test results, measurements, calculations, and other documentation used to determine the following information: identification of each process unit at the facility that undergoes turnarounds, the date of the most recent turnaround for each process unit, identification of each process unit turnaround waste, the water content of each process unit turnaround waste, the annual waste quantity determined in accordance with §61.355(b)(5), the range of benzene concentrations in the waste, the annual average flow-weighted benzene concentration of the waste, and the annual benzene quantity calculated in accordance with §61.355(a)(1)(iii). [§61.356(b)(5)]

f) For each facility where wastewater streams are controlled for benzene emissions in accordance with §61.348(b)(2), the records shall include all measurements, calculations, and other documentation used to determine the annual benzene content of the waste streams and the total annual benzene quantity contained in all waste streams managed or treated in exempt waste management units. [§61.356(b)(6)]

3. If the permittee is transferring waste off-site to another facility for treatment in accordance with §61.342(f), the permittee shall maintain documentation for each offsite waste shipment that includes the following information: Date waste is shipped offsite, quantity of waste shipped offsite, name and address of the facility receiving the waste, and a copy of the notice sent with the waste shipment. [§61.356(c)]
4. For control equipment operated in accordance with §61.343, §61.345, and §61.346, the permittee shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). [§61.356(d)]
5. For a treatment process or wastewater treatment system unit operated in accordance with §61.348, the permittee shall maintain the following records. The documentation shall be retained for the life of the unit. [§61.356(e)]
   a) A statement signed and dated by the permittee certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur. [§61.356(e)(1)]
   b) If engineering calculations are used to determine treatment process or wastewater treatment system unit performance, then the permittee shall maintain the complete design analysis for the unit. The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, and other documentation necessary to demonstrate the unit performance. [§61.356(e)(2)]
   c) If performance tests are used to determine treatment process or wastewater treatment system unit performance, then the permittee shall maintain all test information necessary to demonstrate the unit performance. [§61.356(e)(3)]
      i) A description of the unit including the following information: type of treatment process; manufacturer name and model number; and for each waste stream entering and exiting the unit, the waste stream type (e.g., process wastewater, sludge, slurry, etc.), and the design flow rate and benzene content. [§61.356(e)(3)(i)]
      ii) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include the following information: sampling locations,

sampling method, sampling frequency, and analytical procedures used for sample analysis. [§61.356(e)(3)(ii)]

iii) Records of unit operating conditions during each test run including all key process parameters. [§61.356(e)(3)(iii)]

iv) All test results. [§61.356(e)(3)(iv)]

d) If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). [§61.356(e)(4)]

6. For each closed-vent system and control device operated in accordance with §61.349, the permittee shall maintain the following records. The documentation shall be retained for the life of the control device. [§61.356(f)]

a) A statement signed and dated by the permittee certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. [§61.356(f)(1)]

b) If engineering calculations are used to determine control device performance in accordance with §61.349(c), then a design analysis for the control device that includes for example: [§61.356(f)(2)]

i) Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the permittee, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters: [§61.356(f)(2)(i)]

(1) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the flame zone. [§61.356(f)(2)(i)(C)]

(2) For a carbon adsorption system that regenerates the carbon bed directly on-site in the control device such as a fixed-bed adsorber, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon. [§61.356(f)(2)(i)(F)]

(3) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. [§61.356(f)(2)(i)(G)]

(4) For a control device subject to the requirements of §61.349(a)(2)(iv), the design analysis shall consider the vent stream composition, constituent concentration, and flow rate. The design analysis shall also include all of the information submitted under §61.349(a)(2)(iv). [§61.356(f)(2)(i)(H)]

c) If performance tests are used to determine control device performance in accordance with §61.349(c): [§61.356(f)(3)]

i) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameters during the test program. [§61.356(f)(3)(i)]

ii) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity, and construction materials. [§61.356(f)(3)(ii)]

iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis. [§61.356(f)(3)(iii)]

iv) All test results. [§61.356(f)(3)(iv)]

7. The permittee shall maintain a record for each visual inspection required by §61.343, §61.345, and §61.346 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [§61.356(g)]
8. The permittee shall maintain a record for each test of no detectable emissions required by §61.343, §61.345, §61.346, and §61.349. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. [§61.356(h)]
9. For each treatment process and wastewater treatment system unit operated to comply with §61.348, the permittee shall maintain documentation that includes the following information regarding the unit operation: [§61.356(i)]
   a) Dates of startup and shutdown of the unit. [§61.356(i)(1)]
   b) If a process parameter is continuously monitored in accordance with §61.354(a)(2), the permittee shall maintain records that include a description of the operating parameter (or parameters) to be monitored to ensure that the unit will be operated in conformance with these standards and the unit's design specifications, and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the unit. [§61.356(i)(3)]
   c) If measurements of waste stream benzene concentration are performed in accordance with §61.354(b), the permittee shall maintain records that include the date each test is performed and all test results. [§61.356(i)(4)]
   d) Periods when the unit is not operated as designed. [§61.356(i)(5)]
10. For each control device, the permittee shall maintain documentation that includes the following information regarding the control device operation: [§61.356(j)]

a) Dates of startup and shutdown of the closed-vent system and control device. [§61.356(j)(1)]
b) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the control device. [§61.356(j)(2)]
c) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when: [§61.356(j)(3)]
    i) Any valve car-seal or closure mechanism required under §61.349(a)(1)(ii) is broken or the by-pass line valve position has changed. [§61.356(j)(3)(i)]
    ii) The flow monitoring devices required under §61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required. [§61.356(j)(3)(ii)]
d) If a boiler or process heater is used, then the permittee shall maintain records of each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone as required by §61.349(a)(2)(i)(C). For a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), the permittee shall maintain continuous records of the temperature of the gas stream in the combustion zone of the boiler or process heater and records of all three-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28°C (50°F) below the design combustion zone temperature. For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr), the permittee shall maintain continuous records of the parameter(s) monitored in accordance with the requirements of §61.354(c)(5). [§61.356(j)(6)]
e) If a carbon adsorber is used, then the permittee shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the permittee shall record all three-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the permittee shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time. [§61.356(j)(9)]
f) If a carbon adsorber that is not regenerated directly on site in the control device is used, then the permittee shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time then the existing carbon in the control device is replaced with fresh carbon. [§61.356(j)(10)]
g) If an alternative operational or process parameter is monitored for a control device, as allowed in §61.354(e), then the permittee shall maintain records of the continuously monitored parameter, including periods when the device is not operated as designed. [§61.356(j)(11)]
h) If a control device subject to the requirements of §61.349(a)(2)(iv) is used, then the permittee shall maintain records of the parameters that are monitored and each occurrence when the parameters monitored are outside the range of values specified in §61.349(a)(2)(iv)(C), or other records as specified by the Administrator. [§61.356(j)(12)]

11. If the permittee elects to install and operate the control equipment in §61.351 shall comply with the recordkeeping requirements in §60.115b. [§61.356(k)]
12. If a system is used for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air, then the permittee shall maintain records of the monitoring device and records of all periods during which the pressure in the unit is operated at a pressure that is equal to or greater than atmospheric pressure. [§61.356(m)]

13. For each total enclosure used to comply with control requirements for tanks in §61.343 or the control requirements for containers in §61.345, the permittee shall keep the records required in §61.356(n)(1) and (2). The permittee may use records as required in §264.1089(b)(2)(iv) or §265.1090(b)(2)(iv) for a tank or as required in §264.1089(d)(1) or §265.1090(d)(1) for a container to meet the recordkeeping requirement in §61.356(n)(1). The permittee shall make the records of each verification of a total enclosure available for inspection upon request. [§61.356(n)]
    a) Records of the most recent set of calculations and measurements performed to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" in §52.741, Appendix B; [§61.356(n)(1)]
    b) Records required for a closed-vent system and control device according to the requirements in §61.356(d), (f), and (j). [§61.356(n)(2)]
14. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
15. The permittee shall keep each record readily accessible in hard copy or electronic form on-site for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records shall be accessible to Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The permittee shall submit a report which shall include the following information: [§61.357(a)]
    a) Total annual benzene quantity from facility waste determined in accordance with §61.355(a). [§61.357(a)(1)]
    b) A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of NESHAP FF. [§61.357(a)(2)]
    c) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF the following information shall be added to the table: [§61.357(a)(3)]
        i) Whether or not the water content of the waste stream is greater than ten percent; [§61.357(a)(3)(i)]
        ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; [§61.357(a)(3)(ii)]
        iii) Annual waste quantity for the waste stream; [§61.357(a)(3)(iii)]
        iv) Range of benzene concentrations for the waste stream; [§61.357(a)(3)(iv)]
        v) Annual average flow-weighted benzene concentration for the waste stream; and [§61.357(a)(3)(v)]
        vi) Annual benzene quantity for the waste stream. [§61.357(a)(3)(vi)]
    d) The information required in §61.357(a)(1), (2), and (3) should represent the waste stream characteristics based on current configuration and operating conditions. The permittee only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in §61.10(a). [§61.357(a)(4)]
2. If the total annual benzene quantity from facility waste is less than one Mg/yr (1.1 tpy), then the permittee shall submit to the Administrator a report that updates the information listed in §61.357(a)(1) through (3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to one Mg/yr (1.1 tpy) or more. [§61.357(b)]

3. If the total annual benzene quantity from facility waste is less than ten Mg/yr (11 tpy) but is equal to or greater than one Mg/yr (1.1 tpy), then the permittee shall submit to the Administrator a report that updates the information listed in §61.357(a)(1) through (3). The report shall be submitted annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to ten Mg/yr (11 tpy) or more. If the information in the annual report required by §61.357(a)(1) through (3) is not changed in the following year, the permittee may submit a statement to that effect. [§61.357(c)]
4. If the total annual benzene quantity from facility waste is equal to or greater than ten Mg/yr (11 tpy), then the permittee shall submit to the Administrator the following reports: [§61.357(d)]
   a) A certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests have been carried out in accordance with NESHAP FF. [§61.357(d)(1)]
   b) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that updates the information listed in §61.357(a)(1) through (3). If the information in the annual report required by §61.357(a)(1) through (3) is not changed in the following year, the permittee may submit a statement to that effect. [§61.357(d)(2)]
   c) If the permittee elects to comply with the requirements of §61.342(c)(3)(ii), then the report required by §61.357(d)(2) shall include a table identifying each waste stream chosen for exemption and the total annual benzene quantity in these exempted streams. [§61.357(d)(3)]
   d) If the permittee elects to comply with the alternative requirements of §61.342(d), then he shall include in the report required by §61.357(d)(2) a table presenting the following information for each process wastewater stream: [§61.357(d)(4)]
      i) Whether or not the process wastewater stream is being controlled for benzene emissions in accordance with the requirements of NESHAP FF; [§61.357(d)(4)(i)]
      ii) For each process wastewater stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF, the table shall report the following information for the process wastewater stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity; [§61.357(d)(4)(ii)]
      iii) For each process wastewater stream identified as being controlled for benzene emissions in accordance with the requirements of NESHAP FF, the table shall report the following information for the process wastewater stream as determined at the exit to the treatment process: Annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.357(d)(4)(iii)]
   e) If the permittee elects to comply with the alternative requirements of §61.342(e), then the report required by §61.357(d)(2) shall include a table presenting the following information for each waste stream: [§61.357(d)(5)]
      i) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of NESHAP FF; the table shall report the following information for the waste stream as determined at the point of waste generation: annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity; [§61.357(d)(5)(i)]
      ii) For each waste stream identified as being controlled for benzene emissions in accordance with the requirements of NESHAP FF; the table shall report the following information for the waste stream as determined at the applicable location described in §61.355(k)(2): Annual

waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity. [§61.357(d)(5)(ii)]

f) Beginning three months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of NESHAP FF [§61.357(d)(6)]

g) Beginning three months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit a report quarterly to the Administrator that includes: [§61.357(d)(7)]

i) If a treatment process or wastewater treatment system unit is monitored in accordance with §61.354(a)(2), then each three-hour period of operation during which the average value of the monitored parameter is outside the range of acceptable values or during which the unit is not operating as designed. [§61.357(d)(7)(ii)]

ii) If a treatment process or wastewater treatment system unit is monitored in accordance with §61.354(b), then each period of operation during which the flow-weighted annual average concentration of benzene in the monitored waste stream entering the unit is equal to or greater than ten ppmw and/or the total annual benzene quantity is equal to or greater than 1.0 mg/yr. [§61.357(d)(7)(iii)]

iii) For a control device monitored in accordance with §61.354(c), each period of operation monitored during which any of the following conditions occur, as applicable to the control device: [§61.357(d)(7)(iv)]

(1) Each three-hour period of operation during which the average temperature of the gas stream in the combustion zone of a boiler or process heater having a design heat input capacity less than 44 MW (150 MMBtu/hr), as measured by the temperature monitoring device, is more than 28°C (50°F) below the design combustion zone temperature. [§61.357(d)(7)(iv)(C)]

(2) Each three-hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber or other vapor recovery system is more than 20 percent greater than the design concentration level of organics or benzene in the exhaust gas. [§61.357(d)(7)(iv)(D)]

(3) Each occurrence when there is a change in the location at which the vent stream is introduced into the flame zone of a boiler or process heater as required by §61.349(a)(2)(i)(C). [§61.357(d)(7)(iv)(G)]

(4) Each occurrence when the carbon in a carbon adsorber system that is regenerated directly on site in the control device is not regenerated at the predetermined carbon bed regeneration time. [§61.357(d)(7)(iv)(H)]

(5) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in §61.354(c). [§61.357(d)(7)(iv)(I)]

(6) Each three-hour period of operation during which the parameters monitored are outside the range of values specified in §61.349(a)(2)(iv)(C), or any other periods specified by the Administrator for a control device subject to the requirements of §61.349(a)(2)(iv). [§61.357(d)(7)(iv)(J)]

iv) For a cover and closed-vent system monitored in accordance with §61.354(g), the permittee shall submit a report quarterly to the Administrator that identifies any period in which the pressure in the waste management unit is equal to or greater than atmospheric pressure. [§61.357(d)(7)(v)]

h) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that summarizes all inspections required by §61.342 and §61.343 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. [§61.357(d)(8)]

5. If the permittee is electing to comply with the provisions of §61.351, the permittee shall notify the Administrator of the alternative standard selected in the report required under §61.07 or §61.10. [§61.357(e)]
6. If the permittee elects to install and operate the control equipment in §61.351, the permittee shall comply with the reporting requirements in §60.115b. [§61.357(f)]
7. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
8. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 031

Emission Units: Haul Roads

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Unit	Description
CG-08	Haul Road - Gypsum From Mine To Hopper
CG-18	Haul Road Unpaved - SynGyp To Outdoor Storage Pile
CG-26A	Paved Haul Road - Gypsum From Entrance To Rail Hopper
KP-03A	Haul Road Paved - CKD To Tank Agglomerator
KP-04	Haul Road - Waste Dust To Beneficial Reuse Project
LM-01	Haul Road Paved - Lime Delivery
SF-33	Haul Road Paved - Waste Fuel To Fuel Prep
SF-36	Haul Road Paved - LWDF From Rail To Tanks
SF-53	Haul Road Paved - SWDF Feed Carts From Prep To Kiln Burner Building BB-1
SG-11A	Haul road paved SynGyp from Building to reclaim hopper
SH-10	Haul Road Paved - Cement Product Out
TEMP-01	Haul Road Unpaved - Clinker Pile To Temporary Outdoor Clinker Storage

Emission Limitation:

1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

Monitoring:

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible are observed using these procedures, then no further observations would be required.

2. The following monitoring schedule must be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
   c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
   d) If, at the issuance of this permit, the permittee has progressed in the schedule listed in a) through c) the permittee may continue to advance accordingly or maintain observations as prescribed in c).
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
4. For emission units with visible emissions, the source representative would then control fugitive emissions from the haul roads at this site by performing at least one of the following BMPs:
   a) Pavement of Road Surfaces –
      i) The permittee may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve "Control of Fugitive Emissions" while the plant is operating.
      ii) Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
      iii) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   b) Usage of Chemical Dust Suppressants –
      i) The permittee shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
      ii) The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
      iii) The permittee shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The permittee shall keep these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources personnel upon request.
   c) Usage of Documented Watering –
      i) The permittee shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gal/day per 1,000 ft^2 of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the permittee shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.

ii) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
iii) Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
iv) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log as the documented watering.
v) The permittee shall record the date and the amount of water applied for each application on the above areas. The permittee shall keep these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources' personnel upon request.

Recordkeeping:

1. The permittee shall maintain records of all observation results (see Attachments F & J, or equivalent forms generated by the permittee), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units,
   b) All emission units from which visible emissions occurred, and
   c) Whether the visible emissions exceeded the opacity limit.
2. The permittee shall maintain records of any equipment malfunctions, using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall maintain records of any BMPs performed in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records must be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 032 **Emission Units: Storage Piles** 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	
Emission Unit	**Description**
AS-03B	CKD Storage Pile - Vehicle Activity
AS-04A	Ash Storage Pile - Vehicle Activity
AS-05A	Carbon Source Storage Pile - Vehicle Activity
AS-07A_2	Bottom Layer Mix Pile - Vehicle Activity
AS-07B_2	Top Layer Compost Windrow - Vehicle Activity
AS-08A	Artificial Soil Placement - Vehicle Activity
CG-19_3	Synthetic Gypsum - Outdoor Storage Pile - Vehicle Activity
RM-71_3	Clay Storage Pile - Stockhouse 5 - Vehicle Activity
RM-73_2	Lime Fines Storage Pile - Quarry - Vehicle Activity
RM-74_2	Limestone Surge Pile - Vehicle Activity
RM-75_2	Shale Surge Storage Pile - New Kiln - Vehicle Activity
SF-61_2	SHWDF Storage Pile In Kiln Burner Building BB-1 - Vehicle Activity
SG-04_2	SynGyp/Blend Storage Pile (Indoor) - Activity

Emission Limitations:

1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent.
2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 40 percent.

Monitoring:

1. The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required.
2. The following monitoring schedule must be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
   c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
   d) If, at the issuance of this permit, the permittee has progressed in the schedule listed in c)(i)-(iii) the permittee may continue to advance accordingly or maintain observations as prescribed in c)(iii).
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
4. For emission units with visible emissions, the source representative would then control fugitive emissions from the stockpiles at this site by performing at least one of the following BMPs:
   a) Pavement of Stockpile Vehicle Activity Surfaces –
      i) The permittee may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving

approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.

ii) Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.

iii) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

b) Usage of Chemical Dust Suppressants –

i) The permittee shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

ii) The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.

iii) The permittee shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The permittee shall keep these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources' personnel upon request.

c) Usage of Documented Watering –

i) The permittee shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gal/day per 1,000 ft^2 of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)

ii) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)

iii) Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.

iv) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log as the documented watering.

v) The permittee shall record the date and the amount of water applied for each application on the above areas. The permittee shall keep these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources' personnel upon request.

Recordkeeping:

1. The permittee shall maintain records of all observation results (see Attachments F & J, or equivalent forms generated by the permittee), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units,
   b) All emission units from which visible emissions occurred, and
   c) Whether the visible emissions exceeded the opacity limit.
2. The permittee shall maintain records of any equipment malfunctions, using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall maintain records of any BMPs performed in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. All records must be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION 033

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Unit	Description
AS-03C	CKD Storage Pile - Wind Erosion
AS-04C	Ash Storage Pile - Wind Erosion
AS-05C	Carbon Source Storage Pile - Wind Erosion
AS-07A_3	Bottom Layer Mix Pile - Wind Erosion
CG-19_1	Synthetic Gypsum Storage Pile - Outdoors - Wind Erosion
CM-10J	Mill Building
RM-28A	Shale Quarry - Blasting
RM-63_2	Iron Ore Storage Pile - Wind Erosion
RM-71_4	Clay Storage Pile - Stockhouse 5 - Wind Erosion
SF-06	Solid Supplemental Fuel De-Clumper
SF-08	Solid Supplemental Fuel Shredder
SF-09	Solid Supplemental Fuel Vibratory Feeder
SF-10	Solid Supplemental Fuel Granulator
SF-15	Filter Cleaning
SF-61_3	SHWDF Storage Pile In Kiln Burner Building BB-1 - Wind Erosion
SF-85	Engineered Fuel Product Pile
SG-10	SynGyp Building

Emission Limitation:

1. The permittee shall not cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20 percent.

2. Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

Monitoring:

1. The permittee shall conduct opacity readings on every emission unit using the procedures contained in U.S. EPA Test Method 22. The permittee may complete their Method 22 opacity readings on all of the emission units at once, provided that all of the emission units subject to this regulation can be seen from that observation location. Readings are only required when an emission unit is operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
   c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
   d) If at the time of this operating permit issuance the permittee has already progressed to conducting observations once every two weeks or one per month, the permittee may continue from that point forward in the monitoring schedule; however, if a violation is noted the permittee shall revert back to weekly monitoring.
3. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

1. The permittee shall maintain records of all observation results (see Attachments F & J, or equivalent forms generated by the permittee), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units and
   b) All emission units from which visible emissions occurred
2. The permittee shall maintain records of all maintenance and any equipment malfunctions using Attachment D or an equivalent form generated by the permittee.
3. The permittee shall maintain records of any U.S. EPA Method 9 opacity test performed in accordance with this permit condition.
4. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
5. Records may be kept in either written or electronic form.
6. All records shall be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 034 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	
Emission Unit	**Description**
MS-06A	Standby Emergency Generator
MS-06	Standby Emergency Generator
MS-08	Emergency Fire Pump

Emission Limitations:

The permittee shall not cause or permit the emission into the atmosphere gases containing more than 500 ppmv of SO_2 or more than 35 mg/m^3 of sulfuric acid or sulfur trioxide or any combination of these gases averaged on any consecutive three-hour time period.

Monitoring/Recordkeeping:

1. The permittee shall maintain an accurate record of the sulfur content of fuel as fired.
2. The permittee shall monitor the sulfur content of each delivery of fuel (fuel oil #2/diesel) documenting that the sulfur content never exceeds 0.0015 percent.
3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
4. Records may be kept in either written or electronic form.
5. All records shall be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 035 10 CSR 10-6.400 Restriction of Emission of PM From Industrial Processes		
Emission Unit	**Description**	**MHDR (ton/hr)**
CG-07A	Gypsum Storage Pile - Load-In/Out	375
CG-07B	Gypsum Storage Pile - Vehicle Activity	375
CG-16	Gypsum Transfer	13.542
CM-09A	Clinker Weighing And Transfer	108.18
CM-09B	Clinker Weighing And Transfer	108.18
CM-09C	Clinker Weighing And Transfer	108.18
CM-10C,G	Finish Mill 1 & 2 Air Separators	108.18
RM-60_1	Limestone Storage Pile - Load-In/Out	312.5

Emission Limitation:

1. The permittee shall not emit PM in excess of the limits given in the following table:

Emission Unit	Description	PM Emission Limit (lb/hr)
CG-07A	Gypsum Storage Pile - Load-In/Out	65.56
CG-07B	Gypsum Storage Pile - Vehicle Activity	65.56

CG-16	Gypsum Transfer	23.50
CM-09A	Clinker Weighing And Transfer	52.07
CM-09B	Clinker Weighing And Transfer	52.07
CM-09C	Clinker Weighing And Transfer	52.07
CM-10C,G	Finish Mill 1 & 2 Air Separators	52.07
RM-60_1	Limestone Storage Pile - Load-In/Out	63.47

2. The permittee shall not cause, allow or permit the emission of PM from any source in a concentration in excess of 0.30 gr/scf of exhaust gases.

Monitoring/Recordkeeping:

1. The permittee shall retain the PTE calculations in Attachment I which demonstrate that the above emission limitation will never be exceeded. No further recordkeeping shall be required to demonstrate compliance with the emission limitations.
2. The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
3. All records shall be maintained for five years.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 036

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Unit	Description
SF-04	Ball Mill
SF-05_1	Solid Supplemental Fuel Storage Pile - Load-In/Out
SF-05_2	Solid Supplemental Fuel Storage Pile - Vehicle Activity
SF-06	Solid Supplemental Fuel De-Clumper
SF-08	Solid Supplemental Fuel Shredder
SF-09	Solid Supplemental Fuel Vibratory Feeder
SF-10	Solid Supplemental Fuel Granulator
SF-11_1	Solid Supplemental Fuel Feed Pile - Load-In/Out
SF-11_2	Solid Supplemental Fuel Feed Pile - Vehicle Activity
SF-12	Solid Supplemental Fuel Cart Loading
SF-13	Solid Supplemental Fuel Feed Hopper
SF-14	Solid Supplemental Fuel Basket Elevator

Operational Limitation:

1. The Supplemental Fuel Storage Building that houses SF-04, SF-05_1, SF-05_2, SF-06, SF-08, SF-09, SF-10, SF-11_1, SF-11_2, SF-12, SF-13, and SF-14 shall be held under negative pressure and emissions shall vented by secondary air fans to the kiln while the kiln is in operation.
2. The secondary air fans shall be equipped with monitors, which shall monitor the vacuum on the fans. The monitors shall be located such that Department of Natural Resources' employees may easily observe them.

3. The permittee shall cease operations at the Supplemental Fuel Storage Building should negative pressure no longer exist at the fans. Operations at the Supplemental Fuel Storage Building may resume upon restoration of negative pressure.
4. When the kiln is not operating, emissions shall be vented to carbon canisters.

Monitoring/Recordkeeping:

1. The permittee shall monitor the concentration level of organic compounds and replace carbon canisters when carbon breakthrough is indicated.
2. The permittee shall maintain a maintenance log for the fans using Attachment D or an equivalent form generated by the permittee. The record shall be maintained in hard copy or electronic form. The log(s) shall include maintenance activities, with inspection schedule, and repair actions, etc.
3. The permittee shall maintain all records onsite for the most recent 60 months of operation and shall make the records available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 037

10 CSR 10-6.060 Construction Permits Required

Construction Permit 102012-003, Issued October 5, 2012

Emission Unit	Description
RM-77	Limestone Storage Pile
RM-78	Unpaved Haul Road - Limestone from Storage Pile to Crusher
RM-79	Haul Road - Iron/Bottom Ash from Front Entrance to Cave
RM-80	Bottom Ash Cave Storage Pile
RM-81	Iron Ore Cave Storage Pile
RM-82	Iron Ore/Bottom Ash Blend Cave Storage Pile
RM-83	Unpaved Haul Road - Blend from Cave to Raw Material Storage Building
RM-84	Limestone from Front Entrance to New Storage Pile
KP-11	Unpaved Haul Road - Fly Ash from Church Entrance to Raw Mill Feed Building
KP-12	500 ton Fly Ash Silo
KP-13	Airslide
SG-32	Haul Road - Bottom Ash from Front Entrance to Syn-Gyp Building
SG-33	100 ton Bottom Ash Feed Tank
SG-34	Screw Conveyor

Emission Limitation:

1. Special Condition 1.A: The permittee shall emit less than 25.0 tons of PM in any consecutive 12-month period from the following emission units:
   a) Hauling Offsite Limestone into New Storage Piles (RM-77, RM-78, and RM-84)
   b) Iron Ore/Bottom Ash Hauling and Blending (RM-79, RM-80, RM-81, RM-82, and RM-83)

c) Fly Ash Feed System (KP-11, KP-12, and KP-13)
d) Bottom Material Feed System for Additions to Synthetic Gypsum Blend (SG-32, SG-33, and SG-34)

Operational Limitations:

1. Special Condition 2.A: Paved Haul Roads
   a) The permittee shall control emissions from the paved haul roads in Table 1 to Construction Permit 102012-003 so as to achieve 95 percent control by periodically watering and washing its surface.
   b) Maintenance and/or repair of the surfaces shall be performed as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
2. Special Condition 2.B: Unpaved Haul Roads/Vehicular Activity Areas
   a) The permittee shall control emissions from the unpaved haul roads and vehicular activity areas in Table 2 to Construction Permit 102012-003 so as to achieve 90 percent control by documented watering or the application of chemical dust suppressants.
   b) Chemical Dust Suppressant
      i) The suppressant (such as magnesium chloride, calcium chloride, lignosulfates, etc.) shall be applied in accordance with the manufacturer's suggested application rate and reapplied as necessary to achieve control of fugitive emissions from these areas.
      ii) The permittee shall retain records of the time, date, and the amount of material applied for each application of chemical dust suppressant agent on these haul roads and areas.
   c) Documented Watering
      i) Water shall be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 ft^2 of unpaved/untreated surface area of haul roads/vehicular activity areas as necessary to achieve control of fugitive emissions from these areas.
      ii) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g. number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on days that areas are in use (e.g. meteorological situations, precipitation events, freezing, etc.)
      iii) Meteorological precipitation of any kind (e.g. a quarter inch or more rainfall, sleet, snow and/or freeze thaw conditions), which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the areas are in use, may be substituted for water application until such time as conditions warrant application of water.
      iv) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log that documents the watering.
3. Special Condition 3.A: The permittee shall control emission from the following equipment using dust collectors as specified in the permit application:
   a) Silo loading of the fly ash feed system (KP-12)
   b) Airslide of the fly ash feed system (KP-13)
   c) Silo loading of the bottom ash feed system (SG-33)
4. Special Condition 3.B: The dust collectors/baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The dust collectors/baghouses shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or

meters shall be located such that Department of Natural Resources' employees may easily observe them.

5. Special Condition 3.C: Replacement filters/bags for the dust collectors/baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance.

Table 1 to Construction Permit 102012-003: Paved Haul Roads Requiring Watering

Emission Point	Description	Round Trip Distance (ft)
RM-79	Iron/Bottom Ash from Front Entrance to Cave	2,500
RM-84	Limestone from Front Entrance to New Storage Pile	2,500
SG-32	Bottom Ash from Front Entrance to Syn-Gyp Building	5,100

Table 2 to Construction Permit 102012-003: Unpaved Haul Roads Requiring Watering/Suppressants

Emission Point[1]	Description	Round Trip Distance (ft)
RM-77	Limestone Storage Pile Vehicular Activity	200
RM-78	Hauling of Limestone from Storage Pile to Crusher	2,400
RM-79	Iron/Bottom Ash from Front Entrance to Cave	5,800
RM-80	Bottom Ash Cave Storage Pile Vehicular Activity	200
RM-81	Iron Ore Cave Storage Pile Vehicular Activity	200
RM-82	Iron Ore/Bottom Ash Blend Cave Storage Pile Vehicular Activity	100
RM-83	Hauling of Blend from Cave to Raw Material Storage Building	4,400
RM-84	Limestone from Front Entrance to New Storage Pile	8,800
KP-11	Hauling of Fly Ash from Church Entrance to Raw Mill Feed Building	5,800
SG-32	Bottom Ash from Front Entrance to Syn-Gyp Building	5,100

[1]Some of the emission points are the same as those listed in Table 1 because the same haul road has both paved and unpaved portions.

Monitoring/Recordkeeping:

1. Special Condition 1.B: The permittee shall use Attachment L, or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program to demonstrate compliance with the 25.0 tpy PM emission limitation.
2. Special Condition 3.D: The permittee shall monitor and record the operating pressure drop across the dust collectors/baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. The permittee shall retain a copy of the manufacturer's specifications onsite.
3. Special Condition 3.E: The permittee shall maintain an operating and maintenance log for the dust collectors/baghouses which shall include the following:
   a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
4. Special Condition 4.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.
5. Records may be kept in either written or electronic form.

Reporting:

1. Special Condition 4.B: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of the emission limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 038

10 CSR 10-6.060 Construction Permits Required
Construction Permit 092012-003, Issued September 5, 2012

Emission Unit	Description	Emission Unit	Description
LS-01	Drilling	LS-08	Conveyor
LS-02	Truck Loading	LS-09	Conveyor
LS-03	Truck Unloading	LS-10	Conveyor
LS-04	Crusher	LS-11	Conveyor
LS-05	Conveyor	LS-12	Conveyor
LS-06	Conveyor	LS-13	Hauling
LS-07	Conveyor		

Emission Limitation:

1. Special Condition 1.A: The permittee shall emit less than 25.0 tons of PM in any consecutive 12-month period from the underground limestone mine as listed within Table 1 to Construction Permit 092012-003.
2. Special Condition 1.B: The permittee shall use Attachment M, or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program to demonstrate compliance with the 25.0 tpy PM emission limitation.

Table 1 to Construction Permit 092012-003: Underground Limestone Mine Equipment/Activities List

Emission Unit	Description	Emission Unit	Description
LS-01	Drilling	LS-08	Conveyor
LS-02	Truck Loading	LS-09	Conveyor
LS-03	Truck Unloading	LS-10	Conveyor
LS-04	Crusher	LS-11	Conveyor
LS-05	Conveyor	LS-12	Conveyor
LS-06	Conveyor	LS-13	Hauling
LS-07	Conveyor		

Operational Limitations:

1. Special Condition 2: Haul road Dust Control
   a) The permittee shall control emissions from all haul roads at this site using water or surfactant spray consistently and correctly at all times to prevent visible fugitive emissions from entering the ambient air beyond the property boundary. The following conditions apply to haul road watering:
      i) The water application rate shall be 100 gallons per day per 1,000 ft^2 at least once every day.
      ii) A quarter inch or more rainfall during the preceding 24 hours shall substitute for one daily water application.
      iii) Water/surfactant application shall not be required when the ground is frozen or when there

will be no traffic on the roads.

b) The permittee shall retain the following records on file and available for inspection:
   i) A daily log initialed by the responsible facility operator of roads watered and quantity of water/chemical application used, or notation that there was a quarter inch or greater rainfall within the past 24 hours or that the facility was not in operation.
   ii) Water tank size, total area of roads to be watered, and the resultant number of fills necessary to accomplish the required application rate.
   iii) Records of watering equipment breakdowns and repairs.

2. Special Condition 3: Inherent Moisture Content Testing
   a) The permittee shall conduct periodic moisture content tests to confirm that the inherent moisture content in the processed limestone is greater than 1.5 percent by weight.
   b) Testing shall be conducted according to ASTM D-2216, C-566, or another method approved by the Director.
   c) The initial test shall be conducted no later than 45 days after the start of operation of the underground mine. Thereafter, the permittee shall conduct the moisture content test at least once every year, during the months of June through September.
   d) Rock samples shall be obtained at the end of the process after they have been processed by all of the equipment at the underground mine.
   e) Two copies of the written report of the moisture content tests shall be submitted to the Director within 30 days of the completion of the required tests and shall include, at a minimum, the wet weight, the dry weight, the drying time, the moisture content of each rock sample, the test date, and the name and title of the individual performing the moisture content analysis. The permittee shall maintain a record of the above testing information and make it available upon request to Department of Natural Resources' personnel.
   f) If any tests indicate that the inherent moisture content of the limestone is less than 1.5 percent by weight, the permittee shall conduct a second test within 15 days. If the result of the second test also shows a moisture content less than 1.5 percent by weight, the permittee shall apply for a new construction permit to account for the revised information within 30 days after the second noncompliant test.

Recordkeeping/Reporting:

1. Special Condition 4.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
2. Special Condition 4.B: The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate an exceedance of the emission limitation.
3. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

PERMIT CONDITION 039

10 CSR 10-6.060 Construction Permits Required
Construction Permit 092013-017, Issued September 27, 2013

Emission Unit	Description		Emission Unit	Description
SF-33/34	Haul Road from Offsite to Fuel Building		SF-81	Belt Conveyor
SF-70	Truck Unloading		SF-82	Belt Conveyor
SF-71	Drum Dumping		SF-83	Magnetic Separation
SF-74	Blend Pit 1		SF-84	Belt Conveyor
SF-75	Blend Pit 2		SF-85	Product Pile
SF-76	Hopper Loading		SF-86	Hopper Loading
SF-77	Belt Conveyor		SF-87	Belt Conveyor
SF-78	Shredder		SF-88	Truck/Cart Loading
SF-79	Belt Conveyor		SF-53UP	Haul Road from Fuel Building to Kiln
SF-80	Screen		SF-53	Haul Road from Fuel Building to Kiln

Operational Limitations:

1. Special Condition 1.A: The permittee shall control dust from the new unpaved waste fuel road (SF-53UP) by using either documented watering or the application of chemical dust suppressant consistently and correctly at all times to prevent visible fugitive emissions from entering the ambient air beyond the property boundary.
2. Special Condition 1.B: The following conditions apply to documented haul road watering:
   a) Water shall be applied in accordance with a recommended application rate of at least 100 gallons per day per 1,000 ft^2 of surface area.
   b) Meteorological precipitation of any kind (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from the haul road while the haul road is in use, may be substituted for water application until such time as conditions warrant application of water.
   c) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the road.
   d) The permittee shall maintain a log that documents daily water applications. The log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record times when the haul road is not in use or rationale for not applying water on days the haul road is in use (e.g. meteorological situations, precipitation events, freezing, etc.)
3. Special Condition 1.C: The following conditions apply to chemical dust suppressants:
   a) The suppressants (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) shall be applied in accordance with the manufacturer's suggested application rate and re-applied as necessary to achieve control of fugitive emissions from the haul road.
   b) The permittee shall keep records of the date, time, and amount of material applied for each application of chemical dust suppressant on these areas.
4. Special Condition 2.A: The permittee shall control emissions from all equipment in the engineered fuel production process using an enclosed building equipped with a baghouse and carbon filter.

a) Special Condition 2.B.1: The building shall be maintained under negative pressure and exhausted to a baghouse followed by a carbon filter.
b) Special Condition 2.B.2: The permittee shall demonstrate negative pressure in the building by using visual indicators, such as negative pressure gauges, streamers, talc puff test, etc. at each building opening that is not closed during normal operations.
c) Special Condition 2.B.3: The permittee shall perform a visual indicator check at least once every 24-hour period which the equipment in the engineered fuel building is in operation.
d) Special Condition 2.B.4: The permittee shall maintain a log for the building which shall include the date and results of the visual indicator check required in Special Condition 2.B.3.
e) Special Condition 2.C.1: The baghouse and carbon adsorber shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge or meter shall be located such that Department of Natural Resources' employees may easily observe it.
f) Special Condition 2.C.2: Replacement filters for the baghouse shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
g) Special Condition 2.C.3: The permittee shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
h) Special Condition 2.C.4: The permittee shall maintain a copy of the baghouse and carbon filter manufacturer's performance warranty on site.
i) Special Condition 2.C.5: The permittee shall maintain an operating and maintenance log for the baghouse and carbon filter which shall include the following:
    i) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
    ii) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

5. Special Condition 3: The permittee shall only haul and process solid, non-hazardous wastes, as defined in 40 CFR 261, in the engineered fuel production process.

Recordkeeping and Reporting:

1. Special Condition 4: The permittee shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the CFR, the CSR, and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

1. General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
2. Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
   a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises.
   b) Yard waste.
3. Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the permittee fails to comply with the conditions or any provisions of the permit.
4. The permittee may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least 200 yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if the permittee fails to comply with the provisions or any condition of the open burning permit.
5. Reporting and Recordkeeping. NSPS CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in §60.2245 - §60.2260. The provisions of NSPS CCCC promulgated as of September 22, 2005, shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with §60.2245 - §60.2260, sources shall conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the Director.
6. Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by NSPS Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of NSPS Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

1. In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
   a) Name and location of installation;

b) Name and telephone number of person responsible for the installation;
c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
d) Identity of the equipment causing the excess emissions;
e) Time and duration of the period of excess emissions;
f) Cause of the excess emissions;
g) Air pollutants involved;
h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
i) Measures taken to mitigate the extent and duration of the excess emissions; and
j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.

2. The permittee shall submit the Paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
3. Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under §643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the Paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under §§643.080 or 643.151, RSMo.
4. Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under §§643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
5. Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.080 Emission Standards for HAPs and 40 CFR Part 61, Subpart M - National Emission Standard for Asbestos

1. The permittee shall follow the procedures and requirements of NESHAP M for any activities occurring at this installation which would be subject to provisions for NESHAP M.
2. The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in NESHAP M.

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

1. The permittee shall complete and submit an EIQ in accordance with the requirements outlined in this rule.
2. The permittee may be required by the Director to file additional reports.
3. Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
4. The permittee shall submit a full paper EIQ to the Air Pollution Control Program by no later than April 1st after the end of each reporting year. The permittee may instead submit a full electronic EIQ via MoEIS by no later than May 1st after the end of each reporting year.
5. Emission fees are due by no later than June 1st after the end of each reporting year. The fees shall be payable to the Missouri Department of Natural Resources.
6. The reporting period shall end on December 31st of each calendar year. Each report shall contain the required information for each emission unit for the 12-month period immediately preceding the end of the reporting period.
7. The permittee shall collect, record, and maintain the information necessary to complete the required forms during each year of operation of the installation.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170
Restriction of PM to the Ambient Air Beyond the Premises of Origin

Emission Limitations:

1. The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive PM emissions to go beyond the premises of origin in quantities that the PM may be found on surfaces beyond the property line of origin. The nature or origin of the PM shall be

determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.
2. The permittee shall not cause nor allow to occur any fugitive PM emissions to remain visible in the ambient air beyond the property line of origin.
3. Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
   a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce PM emissions;
   b) Paving or frequent cleaning of roads, driveways and parking lots;
   c) Application of dust-free surfaces;
   d) Application of water; and
   e) Planting and maintenance of vegetative ground cover.

Monitoring:
1. The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.
2. The permittee shall maintain the following monitoring schedule:
   a) The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance.
   b) Should no violation of this regulation be observed during this period then-
      i) The permittee may observe once every two weeks for a period of eight weeks.
      ii) If a violation is noted, monitoring reverts to weekly.
      iii) Should no violation of this regulation be observed during this period then-
         (1) The permittee may observe once per month.
         (2) If a violation is noted, monitoring reverts to weekly.
   c) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:
1. The permittee shall document all readings on Attachment K, or its equivalent, noting the following:
   a) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
   b) Whether equipment malfunctions contributed to an exceedance.
   c) Any violations and any corrective actions undertaken to correct the violation.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

1. The Director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The Director may specify testing methods to be used in accordance with good professional practice. The Director may observe the testing. All tests shall be performed by qualified personnel.
2. The Director may conduct tests of emissions of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

3. The Director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the Department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the Department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the Department. Certain business entities that meet the requirements for state-approved exemption status must allow the Department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
   a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
   b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
   c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
   d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in 40 CFR Part 82, Subpart B:
   a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
   b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
   c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in 40 CFR Part 82, Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in 40 CFR Part 82, Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

1. The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Any other monitoring methods approved by the Director.
2. Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
3. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
   a) Applicable monitoring or testing methods, cited in:
      i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
      ii) 10 CSR 10-6.040, “Reference Methods”;
      iii) 10 CSR 10-6.070, “New Source Performance Standards”;
      iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”; or
   b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the CFR and CSR for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

1. Recordkeeping
   a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
   b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
2. Reporting
   a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
   b) The permittee shall submit a report of all required monitoring by:
      i) October 1st for monitoring which covers the January through June time period, and
      ii) April 1st for monitoring which covers the July through December time period.
      iii) Exception. Monitoring requirements which require reporting more frequently than semiannually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
   c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or 40 CFR Part 64 exceedances.
   d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
      i) Notice of any deviation resulting from an emergency (or upset) condition as defined in 10 CSR 10-6.065(6)(C)7.A shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under §112(r)

1. The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by §68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:
   a) June 21, 1999;
   b) Three years after the date on which a regulated substance is first listed under §68.130; or
   c) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

1. The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
2. The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
3. The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
4. This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
5. The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The

permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

1. Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
2. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
   a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
   b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
   d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3. All progress reports required under an applicable schedule of compliance shall be submitted semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
   a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
   b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4. The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and 40 CFR Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
   a) The identification of each term or condition of the permit that is the basis of the certification;
   b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
   c) Whether compliance was continuous or intermittent;

d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

1. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
   a) The application requirements are included and specifically identified in this permit, or
   b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
2. Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
   a) The provisions of §303 of the Act or §643.090, RSMo concerning emergency orders,
   b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
   c) The applicable requirements of the acid rain program,
   d) The authority of the EPA and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
   e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

1. An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
   a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
   b) That the installation was being operated properly,
   c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
   d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
2. Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

1. An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement

Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

a) §502(b)(10) changes. Changes that, under §502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
   i) Before making a change under this provision, the permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days' notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
   ii) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

1. Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of 10 CSR 10-6.065(6)(C)9. Off-permit changes shall be subject to the following requirements and restrictions:
   a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
   b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
   c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
   d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Mr. Sam Waters, Plant Manager. On January 21, 2013, the Air Pollution Control Program was informed that Terry Bennett, Vice President of Operations, is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the permittee shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the permittee to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

1. This permit may be reopened for cause if:
   a) The Missouri Department of Natural Resources receives notice from EPA that a petition for disapproval of a permit pursuant to §70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
   b) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
   c) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
      i) The permit has a remaining term of less than three years;
      ii) The effective date of the requirement is later than the date on which the permit is due to expire; or
      iii) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
   d) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
   e) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow. Attachment N contains a list of abbreviations and acronyms used throughout the permit.

Attachment A

Emission Unit SF-02A Waste Fuel Acceptance/Processing Tracking Sheet

Date (month/year):_____.

Waste Fuel Description/Name	Amount Accepted/Processed (gal)
Amount Accepted/Processed this month (gal):	

Month and Year	Amount Accepted/Processed (gal)
Annual Amount Accepted/Processed (gal/yr):[1]	

[1]The Annual Amount Accepted/Processed (gal/yr) = The Amount Accepted/Processed for this month plus the sum of the Amount Accepted/Processed for the previous 11 months. **An Annual Amount Accepted/Process of less than 21,024,000 gallons demonstrates compliance.**

Attachment B

SynGyp Process PM_{10} Tracking Sheet

This sheet covers the period from _________________________ to ______________________.
(month and year) (month and year)

Date (month and year)	Amount of SynGyp Produced (tons)	Comp-PM_{10} Emission Factor (lb/ton)	PM_{10} Emissions This Month[1] (tons)	12-Month PM_{10} Emissions[2] (tons)
		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		
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		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		
		0.1386		

[1] PM_{10} Emissions This Month = Amount of SynGyp Processed x Comp-PM_{10} Emission Factor x 0.0005

[2] 12-Month PM_{10} Emissions = The Sum of the last 12 "PM_{10} Emissions This Month". **12-Month PM_{10} Emissions less than or equal to 15 tons demonstrates compliance.**

Attachment C

Artificial Soil Program PM_{10} Tracking Sheet

This sheet covers the period from __________________________ to _______________________.
(month and year) (month and year)

Date (month and year)	**Amount of Artificial Soil Placed (tons)**	**Comp-PM_{10} Emission Factor (lb/ton)**	**Monthly PM_{10} Emissions[1] (tons)**	**12-Month PM_{10} Emissions[2] (tons/year)**
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
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		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		

[1] Monthly PM_{10} Emissions = Amount of Artificial Soil Placed x Comp-PM_{10} Emission Factor x 0.0005

[2] 12-Month PM_{10} Emissions = The Sum of the last 12 "Monthly PM_{10} Emissions". **12-Month PM_{10} Emissions less than or equal to 15 tons demonstrates compliance.**

Attachment D

Inspection/Maintenance/Repair/Malfunction Log

Emission Unit # or CVM # _____.

Date/ Time	Inspection/ Maintenance Activities	Malfunction Activities					
		Malfunction	Impact	Duration	Cause	Action	Initials

Attachment E

Kiln Clinker Production Tracking Sheet

This sheet covers the period from _____ to _____.
(month/day/year) (month/day/year)

Date (month/day/year)	Daily Clinker Production[1] (tons)	Monthly Clinker Production[2] (tons)	12-Month Average Clinker Production[3] (tons)

[1]**Daily Clinker Production less than or equal to 3,700 tons demonstrates compliance.**
[2]Monthly Clinker Production = The sum of all "Daily Clinker Production" amounts for the calendar month.
[3]12-Month Average Clinker Production = The Sum of the last 12 "Monthly Clinker Production" amounts. **12-Month Average Clinker Production less than or equal to 1,204,500 tons demonstrates compliance.**

Attachment F
Method 22 Opacity Observations

Date	Time	Emission Unit	Are there Visible Emissions?		If there are Visible Emissions…		Initial
			No	Yes	What caused the emissions?	What corrective action was taken?	

Attachment G

Limestone Raw Mix Combination Tracking Sheet

This sheet covers the period from _____ to _____.
(month/day/year) (month/day/year)

The Limestone Raw Mix is currently within the _____ percent to _____ percent Tier and has been since _____.
(month/day/year)

Date (month/day/year)	Time (hour:minute)	Burlington Limestone Amount (tons)	Kimmswick Limestone Amount (tons)	Daily Percentage of Kimmswick Limestone[1]	30-Day Rolling Average Percentage of Kimmswick Limestone [2]

[1]The Daily Percentage of Kimmswick Limestone= $\frac{\text{Kimmswick Amount}}{\text{Burlington Amount} + \text{Kimmswick Amount}} \times 100\%$

[2]The 30-Day Rolling Average Percentage of Kimmswick Limestone = The average of the most recent 30 days Daily Percentages of Kimmswick Limestone. **If the 30-Day Rolling Average Percentage of Kimmswick Limestone is outside of the current tier's percentage range or if the permittee has operated within the current tier for more than 12 consecutive months, a stack test is required.**

Attachment H

Processing/Handling Tracking Sheet

Date: _____
(month/day/year)

Emission Unit	Material	Amount Processed/Handled (tons)	Processing/Handling Limit (tons/day)
RM-29 and RM-30	Shale		2,000
RM-08, RM-08C RM-09, RM-10_1, RM-10_2, RM-31, RM-54, RM-55, RM-56, RM-61_1, RM-61_2, RM-62_1, and RM-62_2	Shale and Clay Combined		4,000
	Limestone		7,500
RM-24A, RM-63_1, and RM-63_3	Iron Ore		300
RM-01A, RM-03A, and RM-04A	Limestone		3,500
RM-01B, RM-03B, and RM-04B	Limestone		7,500
RM-01C, RM-03C, and RM-04C	Limestone		7,500
RM-50, RM-51, RM-51_1, RM-51_2, RM-51_3, RM-52_1, RM-52_2, RM-53, RM-60_1, and RM-60_3	Limestone		7,500
	Shale		2,000
	Clay		2,000
CG-18A	Gypsum (Synthetic or Natural)		800
CG-09B, CG-09E, CG-09F, CG-14, CG-14A, CG-14B, CG-14C, CG-14D, and CG-16	Natural Gypsum		325
LM-01	Lime		60
CG-01A, CG-02AA, CG-17_1, and CG-17_2	Coal and Pet Coke Combined		900
SF-33 and SF-34 **or** SF-36 and SF-37	Supplemental Fuels		600
SF-53	Waste Fuel		200
KP-03	Cement Kiln Dust		250
AS-01AA	Artificial Soils Project Waste		300
AS-02A	Ash		100
AS-02B	Biosolids		100
AS-02D	Carbon Source Waste		100
SH-07	Cement		15,000
SH-08 and SH-09 Combined	Cement		50,000
SH-04,5	Cement		4,500
RM-70	Clay		1,200
RM-72	Limestone Fines		1,000
CG-26A and CG-26B	Natural Gypsum		325
SG-11A	Synthetic Gypsum Blend		400
SF-33	Cement Kiln Dust		250

Attachment I
10 CSR 10-6.400 Compliance Demonstration

This attachment may be used to demonstrate that the listed emission units are in compliance with 10 CSR 10-6.400, *Restriction of Emission of PM From Industrial Processes.*

Allowable PM Emission Rate (E) for Process Weights (P) of less than or equal to 30 tph is calculated by:

$$E\ (lb/hr) = 4.1(P)^{0.67}$$

Allowable PM Emission Rate (E) for Process Weights (P) greater than 30 tph is calculated by:

$$E\ (lb/hr) = 55(P)^{0.11} - 40$$

Potential PM Emission Rate = MHDR (tph) x Emission Factor (lb/ton)

$$\text{Potential PM Concentration} = \frac{\text{Potential PM Emission Rate (lb/hr)} \times 7000\ \text{(gr/lb)}}{\text{Stack Flowrate (scf/min)} \times 60\ \text{(min/hr)}}$$

Emission Unit	Description	MHDR (tph)	PM Emission Factor (lb/ton)	Potential PM Emission Rate (lb/hr)	PM Emission Limit (lb/hr)	Potential PM Conc. (gr/scf)	PM Conc. Limit (gr/scf)
CG-07A	Gypsum Storage Pile - Load-In/Out	375	0.059007	22.13	65.56	-	
CG-07B	Gypsum Storage Pile - Vehicle Activity	375	0.059007	22.13	65.56		
CG-16	Gypsum Transfer	13.542	0.15	2.03	23.50		
CM-09A	Clinker Weighing And Transfer	108.18	0.0047	0.51	52.07	0.04	0.3
CM-09B	Clinker Weighing And Transfer	108.18	0.0047	0.51	52.07	0.04	0.3
CM-09C	Clinker Weighing And Transfer	108.18	0.0047	0.51	52.07	0.04	0.3
CM-10C,G	Finish Mill 1 & 2 Air Separators	108.18	0.014	1.51	52.07	0.20	0.3
RM-60_1	Limestone Storage Pile - Load-In/Out	312.5	0.0188	5.88	63.47	-	

Every emission unit is in compliance for both the PM rate emission limit and PM concentration emission limit. 40 CFR Part 64 *CAM* is not applicable because the emission units meet the emission rate limitation without the aid of a control device.

Attachment J
Method 9 Opacity Observations

Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY

Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ percent opacity.

Was the emission unit in compliance at the time of evaluation? _____ _____ _____
YES NO Signature of Observer

Attachment K
Fugitive Emission Observations

Date	Time	Are there fugitive emissions beyond the property boundary?		If there are fugitive emissions…		Initial
		No	Yes	What caused the emissions?	What corrective action was taken?	

Attachment L
Construction Permit 102012-003 PM Worksheet

This sheet covers the period from _____ to _____.
(month/day/year) (month/day/year)

Emission Unit	Description	Emission Factor (lb/ton)	Material Processed (tons)	Emissions[1] (lb)	Emissions[2] (tons)
RM-84	Paved Haul Road – Limestone	0.007			
	Unpaved Haul Road – Limestone	0.0495			
RM-77	Limestone Load-In	0.009			
	Limestone Load-Out	0.009			
	Limestone Pile Vehicular Activity	0.0029			
	Limestone Pile Wind Erosion	N/A	N/A	N/A	0.781
RM-78	Unpaved Haul Road – Limestone to Crusher	0.0075			
RM-79	Paved Haul Road – Ash to Cave	0.007			
	Unpaved Haul Road – Ash to Cave	0.0326			
RM-80	Ash Storage Pile Load-In	0.0002			
	Ash Storage Pile Load-Out	0.0002			
	Ash Storage Pile Vehicular Activity	0.0041			
RM-81	Iron Ore Cave Storage Pile Load-In	0.0051			
	Iron Ore Cave Storage Pile Load-Out	0.0051			
	Iron Ore Storage Pile Vehicular Activity	0.0041			
RM-82	Blend Storage Pile Load-In	0.0033			
	Blend Storage Pile Load-Out	0.0033			
	Blend Vehicular Activity	0.002			
RM-83	Unpaved Haul Road – Blend to Raw Material Building	0.0232			
KP-11	Unpaved Haul Road – Fly Ash	0.0326			
KP-12	500 ton Fly Ash Silo	0.0099			
KP-13	Airslide	0.0099			
SG-32	Paved Haul Road – Ash to Syn-Gyp Building	0.0136			
	Unpaved Haul Road – Ash to Syn-Gyp Building	0.0039			
SG-33	100 ton Bottom Ash Feed Tank	0.0098			
SG-34	Screw Conveyor	0.03			
Total Emissions this Month[3] (tons):					
Total Monthly Emissions of the Previous 11 Months[4] (tons):					
Total Emissions from the Current 12-Month Period[5] (tpy):					

[1]Emissions (lb) = Emission Factor (lb/ton) x Material Processed (tons).
[2]Emissions (tons) = Emissions (lb) x 0.0005 (ton/lb)
[3]Total Emissions this Month (tons) is calculated as the sum of Emission (tons) for each emission unit.
[4]Total Monthly Emissions of the Previous 11 Months (tons) is calculated by summing the Total Emissions this Month (tons) of the previous 11 months.
[5]Total Emissions from the Current 12-Month Period (tpy) = Total Emissions this Month (tons) + Total Monthly Emissions of the Previous 11 Months (tons). Total Emissions from the Current 12-Month Period of less than 25.0 demonstrates compliance with Permit Condition 037.

Attachment M

Construction Permit 092012-003 PM Worksheet

This sheet covers the period from ____________________________________ to _________________________________.
(month/year) (month/year)

Date (Month/Year)	**Production (tons)**	**Emission Factor (lb/ton)**	**Monthly Emissions[1] (lb)**	**Monthly Emissions[2] (tons)**	**12-Month Rolling Total Emissions[3] (tons)**
Example	*200,000*	*0.01127*	*2,254*	*1.127*	*14.156*
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
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		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			
		0.01127			

[1]Monthly Emissions (lb) = Production (tons) x Emission Factor (lb/ton)
[2]Monthly Emissions (tons) = Monthly Emissions (lb) x 0.0005 (ton/lb)
[3]12-Month Rolling Total Emissions (tons) = This month's Monthly Emissions (tons) + the previous 11 months' Monthly Emissions (tons). 12-Month Rolling Total Emissions less than 25.0 tons demonstrates compliance with Permit Condition 038.

Attachment N

Abbreviations and Acronyms

ºC.....degrees Celsius
ºF..... degrees Fahrenheit
AAQIA ..... ambient air quality impact analysis
acfm ..... actual cubic feet per minute
BACT ..... Best Available Control Technology
BMPs ..... Best Management Practices
Btu ..... British thermal unit
CAM ..... Compliance Assurance Monitoring
CAS ..... Chemical Abstracts Service
CEMS ..... Continuous Emission Monitor System
CFR ..... Code of Federal Regulations
CO ..... carbon monoxide
CO_2 ..... carbon dioxide
CO_2e ..... carbon dioxide equivalent
COMS..... Continuous Opacity Monitoring System
CSR ..... Code of State Regulations
dscf..... dry standard cubic feet
dscm.....dry standard cubic meter
EIQ ..... Emission Inventory Questionnaire
EP ..... Emission Point
EPA ..... Environmental Protection Agency
EU..... Emission Unit
FGD ..... flue gas desulfurization
FIRE.....EPA's Factor Information Retrieval System
fps ..... feet per second
ft..... feet
GACT..... Generally Available Control Technology
GHG ..... Greenhouse Gas
gpm..... gallons per minute
gr..... grains
GWP..... Global Warming Potential
HAP ..... Hazardous Air Pollutant
hr ..... hour
HP..... horsepower
lb ..... pound
lb/hr..... pounds per hour
MACT ..... Maximum Achievable Control Technology
µg/m^3 ..... micrograms per cubic meter
m/s ..... meters per second
mg.....milligrams
Mgal ..... 1,000 gallons
MW ..... megawatt
MHDR..... maximum hourly design rate
MMBtu .... Million British thermal units
mmHg.....millimeters mercury
MMscf..... Million standard cubic feet
MSDS..... Material Safety Data Sheet
NAAQS .... National Ambient Air Quality Standards
NESHAPs National Emissions Standards for Hazardous Air Pollutants
NO_x..... nitrogen oxides
NSPS ..... New Source Performance Standards
NSR ..... New Source Review
PM..... particulate matter
$PM_{2.5}$..... particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10} ..... particulate matter less than 10 microns in aerodynamic diameter
ppm ..... parts per million
PSD..... Prevention of Significant Deterioration
psi.....pounds per square inch
PTE ..... potential to emit
RACT..... Reasonably Available Control Technology
RAL..... Risk Assessment Level
SCC ..... Source Classification Code
scfm ..... standard cubic feet per minute
SCR ..... selective catalytic reduction
SIC ..... Standard Industrial Classification
SIP..... State Implementation Plan
SMAL..... Screening Model Action Levels
SO_x..... sulfur oxides
SO_2..... sulfur dioxide
tph ..... tons per hour
tpy..... tons per year
VMT..... vehicle miles traveled
VOC ..... Volatile Organic Compound

STATEMENT OF BASIS

Permit Reference Documents
These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Application, received May 5, 2010
2) 2009 EIQ
3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition
4) Construction Permit 0686-002, Issued May 30, 1986
5) Construction Permit 0686-002A, Issued October 7, 1986
6) Construction Permit 1086-004, Issued October 6, 1986
7) Construction Permit 1086-004A, Issued February 15, 1990
8) Construction Permit 1086-004B, Issued May 10, 1991
9) Construction Permit 1086-004C, Issued May 13, 1996
10) Construction Permit 1086-004D, Issued August 6, 2003
11) Construction Permit 1289-008, Issued December 20, 1989
12) Construction Permit 0890-008, Issued August 6, 1990
13) Temporary Construction Permit, Issued March 12, 1997
14) Construction Permit 0198-014, Issued December 24, 1997
15) Construction Permit 122001-014, Issued November 16, 2001
16) Construction Permit 092002-022, Issued September 24, 2002
17) Construction Permit 092002-022A, Issued September 29, 2004
18) Construction Permit 092002-022B, Issued March 8, 2005
19) Temporary Construction Permit 052005-025, Issued May 25, 2005
20) Construction Permit 072006-003, Issued July 11, 2006
21) Construction Permit 072007-008, Issued July 24, 2007
22) Construction Permit 072007-008A, Issued March 20, 2009
23) Construction Permit 072007-008B, Issued December 7, 2009
24) Construction Permit 072007-008C, Issued April 23, 2012
25) AAQIA Modeling Memo, June 29, 2010
26) PSD Permit Application Project 2010-01-055
27) Construction Permit 072007-008D, Issued March 26, 2012
28) No Construction Permit Required, Issued June 1, 2007
29) Temporary Construction Permit 032009-002, Issued May 9, 2009
30) No Construction Permit Required, Issued January 4, 2011
31) Construction Permit 092012-003, Issued September 5, 2012
32) Construction Permit 102012-003, Issued October 5, 2012

Other Air Regulations Determined Not to Apply to the Operating Permit
The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.100, *Alternate Emission Limits* is not applicable to the installation and has not been applied within this permit as the installation is in an ozone attainment area.

10 CSR 10-6.345, *Control of NO_x Emissions From Upwind Sources* is not applicable to the installation and has not been applied within this permit. The installation is located in Ralls county which is not a regulated county under 10 CSR 10-6.345(1)(A).

10 CSR 10-6.390, *Control of NO_x Emissions From Large Stationary Internal Combustion Engines* is not applicable to the installation and has not been applied within this permit. The installation does not operate any stationary internal combustion engines with an engine rating greater than 1,300 HP.

Construction Permits

Construction Permit 0686-002, Issued May 30, 1986:
Construction Permit 0686-002A, Issued October 7, 1986:

- This permit is for the installation of six 25,000 gallon fixed roof waste fuel storage tanks.
- Special Conditions 1 and 2 have been applied within Permit Condition 001.
- Special Condition 3, 4, and 6 were not applied within this permit as they are less stringent than the requirements of NSPS Kb (see Permit Condition 022).
- Special Condition 5 required performance testing to demonstrate compliance with Special Condition 3. Special Condition 3 was not included in the permit as it is less stringent than the requirements of NSPS Kb.
- Special Conditions 7 – 9 have been applied within Permit Condition 001.
- Special Condition 10 requires the installation to emit below the de minimis thresholds. This permit condition was not incorporated as the body of the permit documents that the installation's potential emissions of VOC were calculated to be 1.14 tpy. (The de minimis threshold for VOC is 40 tpy.)
- Special Conditions 11 and 12 required notification of anticipated and actual start-up of the installation. It is assumed that these notifications were submitted.

Construction Permit 1086-004, Issued October 6, 1986:
Construction Permit 1086-004A, Issued February 15, 1990:
Construction Permit 1086-004B, Issued May 10, 1991:
Construction Permit 1086-004C, Issued May 13, 1996:
Construction Permit 1086-004D, Issued August 6, 2003:

- This permit allowed the installation to combust waste fuels in the old kiln. As the old kiln is no longer in operation, this construction permit is no longer applicable to the installation.

Construction Permit 1289-008, Issued December 20, 1989:

- This permit is for the construction of a facility to prepare raw material substitutes for the cement manufacturing process, including offloading, shredding, mixing, and thermal desorption equipment.
- These processes are no longer located at the installation; therefore, the special conditions were not included within this operating permit.

Construction Permit 0890-008, Issued August 6, 1990:

- This permit is for the construction of two 75,000 gallon volatile organic liquid storage vessels, one 200 ton dry fuel storage tank, and one 50 ton dry fuel surge tank.
- The only condition of this permit is that the two 75,000 gallon volatile organic liquid storage vessels comply with NSPS Kb. The applicable NSPS Kb requirements can be found in Permit Condition 022.

Temporary Construction Permit, Issued March 12, 1997:
- This permit allowed the installation to conduct temporary blending operations for a period of 12 months to determine the quality of the cement produced by adding a blend of cement kiln dust and gypsum to their finish mill.

Construction Permit 0198-014, Issued December 24, 1997:
- This permit is for the installation of the SynGyp process.
- Special Conditions 1 – 3 have been applied within Permit Condition 002.

No Construction Permit Required, Issued January 24, 2000:
- This no construction permit required letter is for a change in the type of raw materials substitutes permitted under Construction Permit 1289-008.

No Construction Permit Required, Issued March 1, 2001:
- This no construction permit required letter is for the replacement of an existing 390 tph air separator and dust collector with a smaller, newer 216.9 tph air separator and dust collector.

Construction Permit 122001-014, Issued November 16, 2001:
- This permit is for the creation of artificial soil to support the production of trees as a renewable alternative fuel source. The artificial soil is produced by mixing waste materials.
- Special Conditions 1 and 2 have been applied within Permit Condition 003.

Construction Permit 092002-022, Issued September 24, 2002:
Construction Permit 092002-022A, Issued September 29, 2004:
Construction Permit 092002-022B, Issued March 8, 2005:
- This permit is for the replacement of the old kiln with the new kiln. The two amendments are two separate six-month construction extensions. This permit was superseded by Construction Permit 072007-008; therefore, no special conditions from this permit were incorporated into this operating permit.

No Construction Permit Required, Issued March 15, 2004:
- This no construction permit required letter is for the replacement of clay as a cement kiln raw material input with a combination of coal fly ash and aluminum fines.

Temporary Construction Permit 052005-025, Issued May 25, 2005:
- This permit allowed the installation to conduct a temporary evaluation into whether injecting limestone into the kiln raw material feed enhanced production while reducing GHG production on a per ton of clinker basis.

No Construction Permit Required, Issued June 30, 2005:
- This no construction permit required letter is for the installation of a 75,000 gallon waste storage tank containing a hazardous waste containing toluene, xylenes, and methyl ethyl ketone. The letter also states that the tank is subject to NSPS Kb.
- NSPS Kb has been applied within Permit Condition 022.

Construction Permit 072006-003, Issued July 11, 2006:

- This is a PSD permit for the 3,300 ton of clinker per day preheater/precalciner Portland cement kiln, underground limestone mine, and other associated processes. This permit was superseded by Construction Permit 072007-008; therefore, no special conditions from this permit were incorporated into this operating permit.

Construction Permit 072007-008, Issued July 24, 2007:
Construction Permit 072007-008A, Issued March 20, 2009:
Construction Permit 072007-008B, Issued December 7, 2009:
Construction Permit 072007-008C, Issued April 23, 2012:
Construction Permit 072007-008D, Issued March 26, 2012:

- This is a PSD permit modifying the previously issued PSD Construction Permit 072006-003. Modifications include the permitting of a new onsite quarry and an increase to the daily clinker production.
- Amendment A changed existing permit limits (e.g. clinker hourly production rate, limestone hauling rate, etc.) and added new emission sources (e.g. natural gypsum truck delivery, limestone fines truck delivery, etc.)
- Amendment B also changed existing permit limits (e.g. shale unloading, clay unloading, etc.), added new emission sources (e.g. haul road from outside storage pile to crusher, etc.) and relocated existing emission sources (e.g. shale storage pile, iron ore haul road, etc.)
- Amendment C also changed an existing permit limit (e.g. limestone processing), changed an existing emission limit (e.g. main stack baghouses), and added a temporary storage pile. The temporary storage pile expires November 22, 2014.
- Amendment D supersedes special conditions 11.A.1, 11.A.3, 11.A.4, and 11.A.6 of Construction Permit 072007-008C.
- Special Condition 1 supersedes the previously issued Construction Permits 092002-022, 072006-003, 072007-008, and 072007-008A; therefore the special conditions of the superseded construction permits were not incorporated into this operating permit.

- Special Condition 2 requires the installation to cease operations of and render inoperable the following emission units:
-

Emission Unit	Description	Emission Unit	Description
CG-01B	Barge Unloading (Clinker)	RM-14	Raw Material Storage Silos
CG-04	Coal Storage Pile (Rail)	RM-14A	Limestone Storage Silos
CG-07	Gypsum Stockpile – Stockhouse 5	RM-14B	Clay Storage Silos
CG-09A	Coal Unloading At Rail Hopper	RM-15	Secondary Crusher - Limestone
CG-09D	Truck Gypsum Unloading At Hopper	RM-16	Transfer Point Limestone
CG-09G	Coal Transfer Rail	RM-17	Raw Material Grinding And Drying
CG-10	Coal Transfer From MBC2 To Trucks	RM-18	Secondary Crusher - Clay
CG-11	Coal Transfer Rail – Elevator To Truck	RM-19	Transfer Point Clay
CG-12 and CG-12A	Coal Transfer – Elevator To Coal Conveyors MBE-1/MBC-3/MBC-4	KP-01 and KP-01A	Cement Kiln, Cement Kiln Auxiliary Fuel
CG-13	Coal Transfer – MBC-4 To Coal Silo	KP-02A	Endloader Transfer
SG-03	Indoor Synthetic Gypsum Storage Pile	CM-01	Clinker Cooler
SG-12	Reclaim Hopper Loading	CM-01A	Clinker Discharge Via Screw Conveyor
RM-06	Clay Storage Pile In Stockhouse 5	CM-02	Clinker Transfer Drag To Belt Conveyor
RM-11	Limestone Reclaim Hopper	CM-02A	Clinker Discharge To Apron Pan
RM-12	Belt Conveyor To Silos – Raw Material Conveyor	CM-05	Clinker Storage Pile - Stockhouse 5
RM-13	Crushed Raw Material Storage Pile	CM-10B	Finish Mills #1 And #2 Cement Coolers
RM-13A	Crushed Raw Material Conveyor Transfer	SH-06	Cement Handling – Bag Packing

As the new kiln has been operating more than 180 days, it is assumed that these emission units have ceased operation and that the necessary notifications have been submitted; therefore, this condition was not incorporated into the operating permit.

- Special Condition 3 requires the installation to cease transporting of materials on the following haul roads:

Emission Unit	Description	Emission Unit	Description
CG-02A	Unpaved Haul Road – Trucks To Coal/Coke Stockpiles	CG-18	Unpaved Haul Road – SynGyp From Entrance To SynGyp Building
CG-02B	Paved Haul Road – Trucks To Coal/Coke Stockpiles	CG-20	Haul Road Unpaved – Outdoor SynGyp Storage Pile To SynGyp Building
CG-03A	Unpaved Haul Road – Clinker From Stone Entrance To Stockhouse 5	RM-05A	Haul Road – Clay From Plant Entrance To Stockhouse 5
CG-03B	Paved Haul Road – Clinker From Stone Entrance To Stockhouse 5	RM-05B	Haul Road – Clay From Plant Entrance To Stockhouse 5
CG-03C	Unpaved Haul Road – Clinker Truck To Hopper	RM-07	Haul Road – Clay From Stockhouse 5
CG-03D	Unpaved Haul Road – Coal To Stockhouse 5	RM-24	Paved Road – Iron Ore From Entrance To Storage Building
CG-03E	Paved Haul Road – Coal To Stockhouse 5	CM-06	Unpaved Haul Road – Clinker/Fines From Stockhouse 5 To Hopper
CG-05	Unpaved Haul Road – Coal From Stockpile To Hopper	CM-14	Unpaved Haul Road – Clinker Outside Stockpile To Stockhouse 5
CG-06A	Unpaved Haul Road – Gypsum From Stone Entrance To Stockhouse 5	KP-04	Unpaved Haul Road – Waste Dust To Landfill
CG-06B	Paved Haul Road – Gypsum From Stone Entrance To Stockhouse 5	AS-1B	Paved Haul Road – Entrance To Offsite Soils Pile
CG-08	Unpaved Haul Road – Gypsum From Stockhouse 5 To Hopper	AS-1A	Unpaved Haul Road – Entrance To Offsite Soils Pile

  As the new kiln has been operating more than 180 days, it is assumed that these haul roads have ceased operation and that the necessary notifications have been submitted; therefore, this condition was not incorporated into the operating permit.
- Special Condition 4 has been applied within Permit Condition 004.
- Special Condition 5 has been applied within Permit Condition 005.
- Special Condition 6 has been applied within Permit Conditions 006 and 007.
- Special Condition 7 has been applied within Permit Condition 008.
- Special Condition 8 has been applied within Permit Condition 009.
- Special Condition 9 has been applied within Permit Conditions 010 – 016. The compliance testing requirements under Special Condition 9.D.4 were not included as this compliance testing was conducted May 27, 2010.
- Special Condition 10 has been applied within Permit Conditions 015 - 017.
- Special Condition 11 has been applied within Permit Conditions 016 - 018.
- Special Condition 12 has been applied within Permit Condition 019.
- Special Condition 13 has been applied within Permit Condition 016.
- Special Condition 14 has been applied within Permit Conditions 013 - 015.
- Special Condition 15 has been applied within Permit Conditions 015 and 017.
- Special Condition 16 has been applied within Permit Condition 020.
- Special Condition 17 has been applied within Permit Condition 017.
- Special Condition 18 has been applied within Permit Condition 015.

- Special Condition 19 has been applied within Permit Condition PW001.
- Special Condition 20 has been applied within Permit Condition PW002.
- Special Condition 21 has been applied within Permit Conditions 004 – 017, 019, 020, and PW001.
- Special Condition 22 has been applied within Permit Conditions 004 – 020 and PW001.
- Special Condition 23 has been applied within Permit Condition PW002.

No Construction Permit Required, Issued June 1, 2007:
- This no construction permit required letter is for the installation of an outdoor sawdust storage pile. The sawdust is for use as an absorbent material in the processing of solid alternative waste fuels. The letter also states the aggregate mix of sawdust and waste fuel is considered waste and subject to the provisions of MACT EEE.
- MACT EEE has been applied within Permit Condition 026.

Temporary Construction Permit 032009-002, Issued May 9, 2009:
- This permit allows the installation to operate a temporary clinker storage pile (TEMP-02_1 Storage Pile – Load-In/Out, TEMP-02_2 Storage Pile – Vehicular Activity, and TEMP-02_3 Storage Pile – Wind Erosion) to store the clinker accumulating as the clinker grinding system is not yet fully operational. The clinker is hauled to the temporary clinker storage pile on a 1.1 mile long haul road. The haul road (TEMP-01 Haul Roads Unpaved – Clinker Pile To Temporary Outdoor Clinker Storage) and vehicular area around the storage pile (TEMP-02_3) are required to implement documented watering, chemical dust suppressants, or paving to achieve 90 percent control of fugitive PM_{10} emissions. Clinker shall not be added to the storage pile after the clinker grinding system becomes fully operational. This permit is effective until November 22, 2010.

No Construction Permit Required, Issued January 4, 2011:
- This no construction permit required letter is for the installation of a 6 MMBtu/hr natural gas fired boiler to heat plant water.

Construction Permit 102012-003, Issued October 5, 2012:
- This de minimis construction permit is for the addition limestone hauling from an outside quarry; a change in handling and mixing procedures for the iron ore and bottom ash blend; and the construction of a fly ash feed system, an alternative fuel material feed system, and a bottom material feed system.
- Special Conditions 1 – 4 have been applied within this permit (see Permit Condition 037).

Construction Permit 092012-003, Issued September 5, 2012:
- This de minimis construction permit is for the addition of an underground limestone mine.
- Special Conditions 1 – 4 have been applied within this permit (see Permit Condition 038).

Construction Permit 092013-017, Issued September 27, 2013:
- This de minimis construction permit is for the addition of an engineered fuel production process.
- Special Conditions 1 – 4 have been applied within this permit (see Permit Condition 039).

NSPS Applicability

40 CFR Part 60, Subpart F – *Standards of Performance for Portland Cement Plants* is applicable to the installation and has been applied within this permit (see Permit Condition 021). Affected facilities at the installation are raw mill systems, finish mill systems, raw mill driers, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems. [§60.60(a)] The kiln and clinker cooler standards in this regulation do not apply to the installation as these sources were constructed prior to June 16, 2008.

40 CFR Part 60, Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* is applicable to the installation and has been applied within this permit (see Permit Condition 022). Affected facilities are storage vessels sized 19,812 gallons to 39,890 gallons with a maximum true vapor pressure of greater than or equal to 15.0 kPa and storage vessels greater than 39,890 gallons in size with a maximum true vapor pressure greater than or equal to 3.5 kPa. [§60.110b(a) and §60.110b(b)] The following table outlines tank applicability at the installation:

Emission Unit	Description	NSPS Kb Applicability
MS-01A and MS-01B	Diesel Fuel Storage Tanks	Diesel has a maximum true vapor pressure of 0.15168 kPa at 100°F; therefore, NSPS Kb *is not* applicable to this tank.
MS-02A and MS-02B	Bulk Oil Storage Tank – 6,000 gallons	These tanks are too small to be subject to the requirements of NSPS Kb.
MS-03A and MS-03B	Waste Oil Storage Tank – 2,000 gallons	
MS-04A and MS-04B	Unleaded Gasoline Tank – 560 gallons	
MS-05A and MS-05B	Grinding Aid Tanks – (1) 10,000 gallons and (1) 6,000 gallons	
SF-02A and SF-02B	HWF Blend Tanks w/ Carbon Filter (6) - 25,000 gallons each	These tanks are subject to NSPS Kb. The tanks contain hazardous waste fuel made up of water, acetone, toluene, xylene, isopropanol, methanol, ethanol, methyl ethyl ketone, methyl acetate, and ethyl acetate. Of the tank constituents, acetone has the highest maximum true vapor pressure of ~42 kPa; therefore, the tanks were all evaluated at this maximum true vapor pressure.
SF-03A and SF-03B	HWF Burn Tanks W/ Carbon Filter (2) – 75,000 gallons each	
SF-03C and SF-03D	LHWDF Tanks – (1) 75,000 gallons and (1) 150,000 gallons	
SF-60A and SF-60B	Supplemental Fuel Storage Tank – Railpad –75,000 gallons	
SF-62A and SF-62B	Supplemental Fuel Storage Tank – Railpad – 75,000 gallons	

40 CFR Part 60, Subpart Y – *Standards of Performance for Coal Preparation and Processing Plants* is applicable to the installation and has been applied within this permit (see Permit Condition 023). Affected facilities are thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems. [§60.250(b)] All of the affected facilities commenced construction prior to April 28, 2008; therefore, the thermal dryer NO_x, SO_2, and CO limitations, the coal processing and conveying equipment, coal storage systems, transfer and loading systems PM limitations, and the open storage piles opacity limitations are not applicable. As the emissions from the installation's thermal dryer (CG-25 Coal/Coke Mill Preheater) are vented to the main stack which is subject to lower PM and opacity standards under MACT EEE, the PM and opacity standards for the thermal dryer within §60.252 were not included within this permit although they are applicable.

40 CFR Part 60, Subpart LL – *Standards of Performance for Metallic Mineral Processing Plants* is not applicable to the installation and has not been applied within this permit. The installation does not fit the definition of metallic mineral processing plant within §60.381 as the installation does not concentrate metallic mineral concentrate. The installation by iron ore with an approximate iron content of 90 percent from the steel industry. This steel industry by-product is trucked in on RM-24A Haul Road Unpaved – Iron Ore From Entrance To Storage and then stored in RM-63 Iron Ore Storage Pile until needed. The iron ore is not processed or purified in any way prior to usage.

40 CFR Part 60, Subpart OOO – *Standards of Performance for Nonmetallic Mineral Processing Plants* is not applicable to the installation and has not been applied within this permit. An affected facility that is subject to the provisions of NSPS F or that follows in the plant process any facility subject to the provisions of NSPS F is not subject to the provisions of NSPS OOO. [§60.670(b)] All of the affected facilities (listed in §60.670(a)(1) as each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station) are, therefore, not subject to this regulation as they are subject to NSPS F (see Permit Condition 021).

40 CFR Part 60, Subpart IIII – *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* is applicable to the installation and has been applied within this permit (see Permit Condition 024). The provisions of NSPS IIII are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction after July 11, 2005, were manufactured after April 1, 2006 and are not fire pump engines. [§60.4200(a), §60.4200(a)(2), and §60.4200(a)(2)(i)]

MACT Applicability

40 CFR Part 63, Subpart DD – *National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations* is applicable to the installation, but has not been applied within this permit. Affected sources are the entire group of off-site material management units – tanks, containers, or transfer systems. [§63.680(c)(1)] The installation is only subject to this regulation while handling off-site materials. The materials listed within §63.680(b)(2) are not off-site materials; therefore, the affected sources are not subject to this regulation while handling them. The installation has chosen to comply with NESHAP FF at all times (including times when off-site materials do not contain benzene rather than implementing MACT DD standards for these periods of time) as NESHAP FF is more stringent than MACT DD, only the NESHAP FF standards were applied within this operating permit.

Emission Unit	Description	MACT DD Applicability
MS-01A and MS-01B	Diesel Fuel Storage Tanks	The contents of these tanks do not meet the definition of off-site material; therefore, these tanks are not subject.
MS-02A and MS-02B	Bulk Oil Storage Tank – 6,000 gallons	
MS-03A and MS-03B	Waste Oil Storage Tank – 2,000 gallons	This tank does not meet the definition of off-site material as all of the waste oil is generated on-site; therefore, this tank is not subject.
MS-04A and MS-04B	Unleaded Gasoline Tank – 560 gallons	The contents of this tank do not meet the definition of off-site material; therefore, this tank is not subject.
MS-05A and MS-05B	Grinding Aid Tanks – (1) 10,000 gallons and (1) 6,000 gallons	This tank does not contain any of the HAPs listed within Table 1 to MACT DD; therefore, this tank is not subject.
SF-02A and SF-02B	HWF Blend Tanks w/ Carbon Filter (6) - 25,000 gallons each	These tanks are subject to MACT DD. The tanks contain hazardous waste fuel made up of water, acetone, toluene, xylene, isopropanol, methanol, ethanol, methyl ethyl ketone, methyl acetate, and ethyl acetate. Of the tank constituents, acetone has the highest maximum true vapor pressure of ~42 kPa; therefore, the tanks were all evaluated at this maximum true vapor pressure.
SF-03A and SF-03B	HWF Burn Tanks W/ Carbon Filter (2) – 75,000 gallons each	
SF-03C and SF-03D	LHWDF Tanks – (1) 75,000 gallons and (1) 150,000 gallons	
SF-60A and SF-60B	Supplemental Fuel Storage Tank – Railpad –75,000 gallons	
SF-62A and SF-62B	Supplemental Fuel Storage Tank – Railpad – 75,000 gallons	

40 CFR Part 63, Subpart PP – *National Emission Standards for Containers* is applicable to the installation, but has not been applied within this permit. Affected sources are containers subject to MACT DD. [§63.920] The installation has chosen to instead comply with NESHAP FF at all times – including times when off-site material does not contain benzene.

40 CFR Part 63, Subpart RR – *National Emission Standards for Individual Drain Systems* is applicable to the installation, but has not been applied within this permit. Affected sources are individual drain systems subject to MACT DD. [§63.960] The installation has chosen to instead comply with NESHAP FF at all times – including times when off-site material does not contain benzene.

40 CFR Part 63, Subpart XX – *National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations* is applicable to the installation and has been applied within this permit (see Permit Condition 025). The installation notified the Air Pollution Control Program in a letter dated July 15, 2005 that their hazardous waste fuel supplier would begin transferring them waste subject to MACT XX. Affected facilities under MACT XX are storage vessels, process vents, transfer racks, and any other process unit handling the MACT XX subject waste transferred from the hazardous waste fuel supplier. [§63.1110(c)]

40 CFR Part 63, Subpart EEE – *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors* is applicable to the installation and has been applied within this permit (see Permit Condition 026). Affected sources are hazardous waste cement kilns. [§63.1200]

40 CFR Part 63, Subpart LLL – *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry* is applicable to the installation and has been applied within

this permit (see Permit Condition 027). Affected sources are clinker coolers; raw mills; finish mills; raw material dryers; raw material, clinker, or finished product storage bins; conveying system transfer points including those associated with coal preparation used to convey coal from the mill to the kiln; bagging and bulk loading and unloading systems; and open clinker piles. [§63.1340(b)(1) - (9)] The kiln and alkali bypass are exempt from this regulation per §63.1356 as they are complying with MACT EEE at all times.

40 CFR Part 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* is applicable to the installation and has been applied within this permit (see Permit Conditions 028 and 029). Affected sources are any existing or new stationary RICE located at a major sourec of HAP emissions. [§63.6590]

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations* is applicable to the installation and has been applied within this permit (see Permit Conditions PW003 and 030). The provisions of NESHAP FF apply to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of NESHAP FF are the benzene-containing hazardous waste from any chemical manufacturing plant, coke by-product recovery plant, and petroleum refinery. [§61.340] The installation has chosen to comply with this standard at all times – including times when off-site material does not contain benzene and the installation could instead comply with MACT DD.

CAM Applicability
The CAM rule applies to each pollutant specific emission unit that:
- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

GHG Emissions
This installation is a major source for GHGs. Major stationary sources are required by the Clean Air Act (CAA) to obtain Part 70 operating permits. While Part 70 permits generally do not establish new emissions limits, they consolidate applicable requirements, as defined in 10 CSR 10-6.020(2)(A)23, into a comprehensive air permit. At the time of permit issuance, there were no applicable GHG requirements for this source.

Note that this source is subject to 40 CFR Part 98 - *Mandatory GHG Reporting Rule*. However, the preamble of the GHG Reporting Rule clarifies that 40 CFR Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO_2 emissions in their EIQ; therefore, the installation's CO_2 emissions were not included within this permit. An estimate of CO_2 emissions have been included within the

installation's updated PTE (see the Other Regulatory Determinations section within this Statement of Basis). The applicant is required to report CO_2 emissions data directly to EPA.

Other Regulatory Determinations

The emissions from CG-23 Coal/Coke Mill – Process, CG-25 Coal/Coke Mill Preheater, KP-08 Main Stack – Cement Kiln, and KP-10 Alkali Bypass Baghouse – Vents To Main Stack all vent to the Main Stack; therefore, emission limitations applying to the Main Stack were applied to all of the emission units.

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants* is applicable to the installation and has been applied within this permit (see Permit Conditions 031, 032, and 033). This standard is applicable to the following emission units, but was not applied within the permit as the emission units are assumed to be in compliance with this regulation while in compliance with Permit Condition 006 which requires documented watering or application of a chemical dust suppressant:

Emission Unit	Description
RM-04A	Unpaved Haul Road - A1 Quarry To Crusher
RM-04B	Unpaved Haul Road - Hi-Mag Quarry To Crusher
RM-22_3	Shale Storage Pile Outdoors - Vehicle Activity
SF-34	Haul Road Unpaved - Waste Fuel To Fuel Prep
SF-37	Haul Road Unpaved – LWDF From Rail To Tanks

This standard is applicable to the following emission units, but was not applied within the permit as the emission units are assumed to be in compliance with this regulation while in compliance with Permit Condition 010 which requires documented watering or application of a chemical dust suppressant:

Emission Unit	Description
AS-01AA	Haul Road
CG-02AA	Haul Road Unpaved
CG-18A	Haul Road Paved
CG-26B	Haul Road Unpaved
CM-31	Haul Road Unpaved
CM-32	Haul Road Unpaved
KP-04A	Unpaved Haul Road
RM-04C	Unpaved Haul Road
RM-24A	Haul Road Unpaved

Emission Unit	Description
RM-30	Haul Road Unpaved
RM-61_2	Shale Storage Pile
RM-62_2	Clay Storage Pile
RM-63_3	Iron Ore Storage Pile
RM-69	Haul Road Unpaved
RM-70	Haul Road Unpaved
RM-72	Haul Road Unpaved
RM-76	Unpaved Haul Road

This standard is applicable to the following emission units, but was not applied within the permit as the emission units are assumed to be in compliance with this regulation while in compliance with Permit Condition 015 which requires daily monitoring of the emission units' baghouses (or a baghouse leak detection system) to ensure proper operation of the baghouses:

Emission Unit	Description
KP-08	Main Stack - Cement Kiln
KP-10	Alkali Bypass Baghouse - Vents To Main Stack

This standard is not applicable to the following emission units as they are internal combustion engines operated outside of Kansas City and St. Louis meeting the exemption under 10 CSR 10-6.220(1)(A):

Emission Unit	Description
MS-06A	Standby Emergency Generator
MS-06	Standby Emergency Generator
MS-07	Emergency Generator
MS-08	Emergency Fire Pump

This standard is not applicable to the following emission units as they are subject to a ten percent opacity standard under NSPS F applied within Permit Condition 021 and; therefore, exempted from this standard by 10 CSR 10-6.220(1)(H):

Emission Unit	Description	Emission Unit	Description
CM-15_1	Clinker Storage Pile	RM-03B	Loading Haul Trucks - Sims
CM-15_2		RM-03C	Loading Haul Trucks - Hi-Mag
CM-15_3		RM-09	Old Primary Crusher
CM-30_1	Storage Pile - Clinker In Cave	RM-51	Limestone Feeder/Grizzly - New Crusher
CM-30_2		RM-51_1	New Crusher
CM-30_3		TEMP-02_1	Storage Pile
LM-02	Lime - Transfer To Bin	TEMP-02_2	
RM-03A	Loading Haul Trucks - A1	TEMP-02_3	

This standard is not applicable to the following emission units as they are subject to a 20 percent opacity standard under NSPS Y applied within Permit Condition 023 and; therefore, exempted from this standard by 10 CSR 10-6.220(1)(H):

Emission Unit	Description	Emission Unit	Description
CG-01A	Barge Unloading (Coal/Coke)	CG-21	Coal/Coke Conveyor Baghouse
CG-09C	Unloading At Coal/Coke Hopper	CG-22	Coal/Coke Conveyor/Bin Baghouse
CG-17_1	Coal Storage Pile - Load-In/Out	CG-23	Coal/Coke Mill - Process
CG-17_2	Coal Storage Pile - Vehicle Activity	CG-24	Fine Coal/Coke Mill Bin Vent
CG-17_3	Coal Storage Pile - Wind Erosion	CG-25	Coal/Coke Mill Preheater

This standard is applicable to the following emission units, but was not applied within the permit as the emission units have potential particulate emissions below 0.5 lb/hr and are assumed to always be in compliance with this regulation:

Emission Unit	Description	Emission Unit	Description
AS-07B_3	Top Layer Compost Windrow	RM-28	Shale Quarry - Shale Drilling
AS-08B	Artificial Soil Mixing/Placement	RM-61_3	Shale Storage Pile - Wind Erosion

RM-01A	Drilling At A1 Quarry
RM-01B	Drilling At Sims Quarry
RM-01C	Drilling At Hi-Mag Quarry
RM-22_4	Shale Storage Pile Outdoors

RM-62_3	Clay Storage Pile - Wind Erosion
RM-73_3	Lime Fines Storage Pile
RM-74_3	Limestone Surge Pile - Wind Erosion
RM-75_3	Shale Surge Storage Pile

This standard is not applicable to the following emission units as they are subject to a ten percent opacity standard under MACT LLL applied within Permit Condition 027 and; therefore, exempted from this standard by 10 CSR 10-6.220(1)(H):

Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit
AS-02A	CM-04A	CM-20	RM-37	RM-66_1	SG-06
AS-02B	CM-04B	CM-21A	RM-39	RM-66_2	SG-07
AS-02D	CM-07	CM-21B	RM-40	RM-67	SG-08
AS-03A	CM-07A	CM-21C	RM-41	RM-68	SG-09
AS-04B	CM-07B	CM-22	RM-50	RM-71_1	SG-21
AS-05B	CM-08	CM-23	RM-51_2	RM-71_2	SG-22
AS-07A_1	CM-08_2	CM-24	RM-51_3	RM-73_1	SG-23
AS-07B_1	CM-08A-E	CM-25	RM-52	RM-74_1	SG-24
AS-08C	CM-09A	CM-26A	RM-52_1	RM-75_1	SG-25
CG-07A	CM-09B	CM-26B	RM-52_2	SF-04	SG-26
CG-07B	CM-09C	KP-03	RM-53	SF-05_1	SG-27
CG-07C	CM-10	KP-03B	RM-54	SF-05_2	SG-28
CG-09B	CM-10_1	KP-06	RM-55	SF-05_3	SG-29
CG-09E	CM-10A,F	KP-09	RM-56	SF-11_1	SG-30
CG-09F	CM-10C,G	RM-08	RM-60_1	SF-11_2	SG-31
CG-14	CM-10D,H	RM-08C	RM-60_2	SF-11_3	SH-01
CG-14A	CM-10E,I	RM-10_1	RM-60_3	SF-12	SH-02
CG-14B	CM-11	RM-10_2	RM-61_1	SF-13	SH-03
CG-14C	CM-12	RM-22_1	RM-62_1	SF-14	SH-04,5
CG-14D	CM-12A	RM-22_2	RM-63_1	SF-61_1	SH-07
CG-15	CM-17	RM-29	RM-64	SG-04_1	SH-08
CG-16	CM-18	RM-31	RM-65	SG-05	SH-09
CG-19_2	CM-19	RM-35			

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* is applicable to the installation and has been applied within this permit (see Permit Condition 034). This standard is not applicable to the following sulfur compound emitting units as they exclusively combust pipeline grade natural gas and meet the exemption within 10 CSR 10-6.260(1)(A)2:

Emission Unit	Description
CG-25	Coal/Coke Mill Preheater

This standard is applicable to the following emission unit, but was not applied within the permit as Special Condition 13.C of Construction Permit 072007-008B applied within Permit Condition 016 applies a more stringent limit of 15 ppmw:

Emission Unit	Description
MS-07	Emergency Generator

This standard is applicable to the following emission units, but was not applied as the main stack is subject to a 297.6 lb SO_2/hr limit under Special Condition 15.C of Construction Permit 072007-008B applied within Permit Condition 017:

Emission Unit	Description
KP-08	Main Stack - Cement Kiln
KP-10	Alkali Bypass Baghouse - Vents To Main Stack

10 CSR 10-6.380 *Control of NO_x Emissions From Portland Cement Kilns* is applicable to the installation and has been applied within this permit (see Permit Condition 009).

10 CSR 10-6.400 *Restriction of Emission of PM From Industrial Processes* is applicable to the installation and has been applied within this permit (see Permit Condition 035). The following emission units are exempt from this regulation under 10 CSR 10-6.400(1)(B)7 as they are fugitive emission sources:

Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit
AS-01AA	CG-14	CM-15_2	RM-22_4	RM-73_1	SF-62B
AS-02A	CG-14A	CM-15_3	RM-24A	RM-73_2	SG-04_1
AS-02B	CG-14B	CM-31	RM-28	RM-73_3	SG-04_2
AS-02D	CG-14C	CM-32	RM-28A	RM-74_1	SG-04_3
AS-03A	CG-14D	KP-03A	RM-29	RM-74_2	SG-05
AS-03B	CG-15	KP-03B	RM-30	RM-74_3	SG-06
AS-03C	CG-17_1	KP-04	RM-50	RM-75_1	SG-07
AS-04A	CG-17_2	KP-04A	RM-51_1	RM-75_2	SG-08
AS-04B	CG-17_3	KP-11	RM-51_2	RM-75_3	SG-09
AS-04C	CG-18	LM-01	RM-51_3	RM-76	SG-10
AS-05A	CG-18A	MS-06A	RM-52_1	RM-77	SG-11A
AS-05B	CG-19_1	MS-06	RM-52_2	RM-78	SG-21
AS-05C	CG-19_2	MS-07	RM-61_1	RM-79	SG-22
AS-07A_1	CG-19_3	MS-08	RM-61_2	RM-80	SG-23
AS-07A_2	CG-26A	RM-01A	RM-61_3	RM-81	SG-24
AS-07A_3	CG-26B	RM-01B	RM-62_1	RM-82	SG-25
AS-07B_1	CM-07	RM-01C	RM-62_2	RM-83	SG-26
AS-07B_2	CM-07A	RM-03A	RM-62_3	RM-84	SG-27
AS-07B_3	CM-07B	RM-03B	RM-63_1	SF-15	SG-28
AS-08A	CM-08	RM-03C	RM-63_2	SF-33	SG-29
AS-08B	CM-08_2	RM-04A	RM-63_3	SF-34	SG-30
AS-08C	CM-08A-E	RM-04B	RM-69	SF-36	SG-31
CG-01A	CM-10A,F	RM-04C	RM-70	SF-37	SG-32
CG-02AA	CM-10E,I	RM-08	RM-71_1	SF-53	SH-10
CG-08	CM-10J	RM-08C	RM-71_2	SF-61_1	TEMP-01
CG-09B	CM-12	RM-22_1	RM-71_3	SF-61_2	TEMP-02_1
CG-09C	CM-12A	RM-22_2	RM-71_4	SF-61_3	TEMP-02_2
CG-09E	CM-15_1	RM-22_3	RM-72	SF-62A	TEMP-02_3
CG-09F					

The following emission units are exempt from this regulation under 10 CSR 10-6.400(1)(B)12 as they have the PTE less than 0.5 lb/hr of PM uncontrolled:

Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit	Emission Unit
CG-07C	CM-10D,H	CM-21A	CM-25	RM-60_2	SH-04,5
CM-04A	CM-11	CM-21B	CM-30_1	SG-34	SH-07
CM-04B	CM-18	CM-21C	CM-30_2	SH-01	SH-08
CM-10	CM-19	CM-23	CM-30_3	SH-02	SH-09
CM-10_1	CM-20	CM-24	KP-06	SH-03	

The following emission units are exempt from this regulation under 10 CSR 10-6.400(1)(B)15 as they are required by a federally enforceable condition to install, operate, and maintain a PM control device system that controls at least 90 percent of particulate emissions:

Emission Unit	Description	Federally Enforceable Condition
CG-21	Coal/Coke Conveyor Baghouse	Permit Condition 013 applying Special Condition 9.D of Construction Permit 072007-008B
CG-22	Coal/Coke Conveyor/Bin Baghouse	
CG-23	Coal/Coke Mill - Process	
CG-24	Fine Coal/Coke Mill Bin Vent	
CM-22	New Finish Mill Air Separator Baghouse	
CM-26A	Clinker Storage Baghouse	
CM-26B	Clinker Storage Baghouse	
KP-03	CKD Truck Loading From Waste Dust Tank	
KP-09	Kiln Dust – Load-Out Bin Baghouse	
LM-02	Lime - Transfer To Bin	
RM-31	Transfer Tower 118TT1	
RM-35	Top Elevator/Conveyor Baghouse - Raw Mill	
RM-37	Airslide Baghouse	
RM-39	Blend Silo Vent Baghouse	
RM-40	Airslide/Feedbin/Elevator Baghouse	
RM-41	Airslide/Elevator Baghouse	
RM-51	Limestone Feeder/Grizzly - New Crusher	
RM-52	Sizing Screen Transfer	
RM-53	Sizing Screen Transfer	
RM-54	Conveyor Transfer	
RM-55	Conveyor Transfer	
RM-56	Conveyor Transfer	
RM-64	Raw Material Transfer To Conveyor	
RM-65	Raw Material Conveyor Transfer	
RM-66_1	Raw Material Conveyor Transfer	
RM-66_2	Raw Material Bin Transfer To Conveyor	
RM-67	Transfer To Dust Bin	
RM-68	Kiln Feed Airslides	
CM-17	Clinker Cooler Stack	Permit Condition 014 applying Special Condition 9.D of Construction Permit 072007-008B
KP-08	Main Stack - Cement Kiln	Permit Condition 015 applying Special Condition 9.D of Construction Permit 072007-008B
KP-10	Alkali Bypass Baghouse	
KP-12	500 ton Fly Ash Silo	Permit Condition 037 apply Special Condition 3.A of Construction Permit 102012-003
KP-13	Airslide	
SG-33	100 ton Bottom Ash Feed Tank	
RM-09	Old Primary Crusher	Permit Condition 008 applying Special Condition 7.A of Construction Permit 072007-008B
RM-10_1	Raw Material Transfer Point	
RM-10_2	Raw Material Transfer Point	
RM-60_3	Limestone Storage Pile - Vehicle Activity	Permit Condition 010 applying Special Condition 9.A.1 of Construction Permit 072007-008B

The following emission units are also exempt from this regulation under 10 CSR 10-6.400(1)(B)15 as they are required by a federally enforceable condition to install, operate, and maintain a PM control device system that controls at least 90 percent of particulate emissions:

Emission Unit	Description	Federally Enforceable Condition
SF-04	Ball Mill	Permit Condition 036 in which the installation accepts a voluntary federally enforceable condition to maintain and operate capture and control devices.
SF-05_1 & SF-05_2	Solid Supplemental Fuel Storage Pile – Load-In/Out and Vehicle Activity	
SF-06	Solid Supplemental Fuel De-Clumper	
SF-08	Solid Supplemental Fuel Shredder	
SF-09	Solid Supplemental Fuel Vibratory Feeder	
SF-10	Solid Supplemental Fuel Granulator	
SF-11_1 & SF-11_2	Solid Supplemental Fuel Feed Pile – Load-In/Out and Vehicle Activity	
SF-12	Solid Supplemental Fuel Cart Loading	
SF-13	Solid Supplemental Fuel Feed Hopper	
SF-14	Solid Supplemental Fuel Basket Elevator	

The following emission units are no longer active at the installation:

Emission Unit	Description
AS-01A	Haul Road Unpaved Entrance To Artificial Soil Project - Old Road
CG-01B	Barge Unloading - Clinker
CG-03A	Haul Road - Clinker Barge To Stockhouse 5
CG-03B	Haul Road Paved - Clinker Barge And Truck To Stockhouse 5
CG-03B	Haul Road - Clinker Barge To Stockhouse 5
CG-05	Haul Road - Coal Stockpile To Hopper - Old Kiln
CG-06A	Haul Road: Gypsum - Plant Entrance To Stockhouse 5
CG-06B	Haul Road: Gypsum - Plant Entrance To Stockhouse 5
CG-07A	Gypsum Storage Pile - Activity
CG-07B	Gypsum Storage Pile - Wind Erosion
CM-01	Clinker Cooler - Old Kiln
CM-02	Clinker Transfer Drag To Belt Conveyor
CM-03	Clinker Conveyor Transfer Point
CM-05	Clinker Storage Pile In Stockhouse 5 (Activity) - Old Kiln
CM-05	Clinker Storage Pile In Stockhouse 5 (Wind Erosion) - Old Kiln
CM-06	Haul Road - Clinker From Stockhouse 5 To Hopper
CM-14	Haul Road - Outside Stockpile To Stockhouse 5
KP-01	Cement Kiln - Old Kiln
KP-01A	Cement Kiln - Auxiliary Fuel
KP-02A	Endloader Transfer - Old Kiln
KP-07	Waste Dust Storage Pile - Old Kiln
RM-02	Quarries – Blasting – Old Kiln
RM-11	Crushed Limestone Reclaim Hopper
RM-13	Crushed Limestone Stockpile (Activity)
RM-13A	Raw Materials Conveyor Transfer - Old Kiln
RM-14	Raw Materials Loading And Unloading Silos - Old Kiln
RM-15	Secondary Crusher
RM-16	Raw Materials Conveyor
RM-17	Raw Material Wet Mill
RM-20	Haul Road Unpaved - Plant Entrance To Underground Mine
RM-20B	Haul Road Unpaved - Plant Entrance To Clay Storage Pile - Old Kiln
RM-21	Clay Storage Pile - Underground Mine - Old Kiln
RM-21A	Clay Storage Pile - Underground Mine - New Kiln
SF-01	Pumps/Valves/Flanges – Old Kiln
SF-02B	Supplemental Fuel Storage Tanks - 6
SH-06	Cement Handling Bag Packing

The following emission units have been renamed/relabeled:

Old Emission Unit ID	Description	New Emission Unit ID	Description
CG-02B	Haul Road – Coal Barge To Coal Stockpile	CG-2AA	Haul Road Unpaved – Entrance To Coal/Coke Stockpile
CG-04	Coal Storage Pile	CG-17_1, CG-17_2, and CG-17_3	Coal Storage Pile
CG-09A	See CG-09C	CG-09C	Unloading Coal/Coke At Hopper
CG-20	Haul Road Unpaved – Synthetic Gypsum To Reclaim Hopper	SG-11A	Haul Road Paved SynGyp From Bldg To Reclaim Hopper
CM-10C and CM-10C/G	Finish Mill #1 Air Separator and Finish Mill #2 Air Separator – Old Kiln	CM-10A,F	Finish Mill Elevators 1 & 2
		CM-10C,G	Finish Mill 1 & 2 Air Separators
		CM-10D,H	Finish Mill 1 & 2 Surge Bins
KP-02	Waste Dust Agglomerator	KP-06	CKD Loadout Bin/Agglomerator Added To Old CKD Silo
KP-05	Waste Dust Unloading At Landfill	AS-03A	CKD Storage Pile – Load-In
RM-06	Clay Storage Pile	RM-71	Alkali Clay Storage Pile – New Kiln
RM-07	Haul Road – Stockhouse 5 To Crusher	RM-70	Haul Road Unpaved – Clay From Stockhouse 5 To Crusher
RM-12	Raw Material Conveyors – Old Kiln	RM-10_1 and RM-10_2	Raw Material Transfer Point
		RM-31	Transfer Tower 118TT1
RM-23	Haul Road Unpaved – Clay Storage To Crusher	RM-70	Haul Road Unpaved – Clay From Stockhouse 5 To Crusher
SF-49 and SF-51	Haul Road Paved – For Entrance to CSA #2 and Haul Road Paved From Entrance To CSA #3	SF-33	Haul Road Paved – Waste Fuel To Fuel Prep
		SF-34	Haul Road Waste Fuel Delivery To Fuel Prep

An updated PTE for the installation is shown in the table below:

Pollutant	PTE (tpy)[1]
VOC	103.19
CO	2,168.62
CO_2e	835,601.25
NH_3	0.01
NO_x	1,629.58
PM_{10}	1,173.42
PM_{25}	121.73
SO_x	1,162.35
HAP	109.78
Arsenic Compounds (20-01-9)	0.008
Benzene (71-43-2)	10.80
Beryllium Compounds (20-03-1)	0.0004
Chromium Compounds (20-06-4)	0.004
Cobalt Compounds (20-07-5)	0.0000003
Formaldehyde (50-00-0)	0.0002
N-Hexane (110-54-3)	0.0003
Hydrogen Chloride (7647-01-0)	94.54
Lead Compounds (20-11-1)	0.41
Manganese Compounds (20-12-2)	0.01
Mercury Compounds (20-13-3)	0.15
Naphthalene (91-20-3)	0.0001
Nickel Compounds (20-14-4)	0.005
Phosphorus (yellow or white) (7723-14-0)	0.01
Selenium Compounds (20-16-6)	0.14
Toluene (108-88-3)	0.02

[1]Potential emissions are based upon 8,760 annual hours of uncontrolled operation unless otherwise noted:

- SF-02A, SF-02B, SF-03A - SF-03D, SF-60A, SF-60B, SF-62A, and SF-62B were given a 90 percent control efficiency for VOC from carbon adsorption.
- AS-02A, AS-02B, AS-02D, AS-03A - AS-03C, AS-04A - AS-04C, AS-05A - AS-05C, AS-07A_1 - AS-07A_3, AS-07B_1 - AS-07B_3, AS-08A - AS-08C, and CG-08 were given a 50 percent control efficiency for PM from undocumented watering.
- AS-01AA, CG-02AA, CG-18A, CG-26B, CM-15_2, CM-30_2, CM-31, CM-32, KP-04A, RM-04A – RM-04C, RM-22_3, RM-24A, RM-30, RM-60_3, RM-61_2, RM-62_2, RM-63_3, RM-69, RM-70, RM-72, RM-76, SF-34, SF-37, and TEMP-01 were given a 90 percent control efficiency for PM from documented watering.
- CG-07A - CG-07C, CG-16, CM-30_1, CM-30_3, RM-60_1, RM-60_2, SF-04, SF-05_1 - SF-05_3, SF-06, SF-08 – SF-10, SF-11_1 - SF-11_3, and SF-12 – SF-14 were given a 3.75 percent control efficiency for PM from process enclosure.
- CG-26A, LM-01, SF-33, SF-36, SF-53, and SH-10 were given a 95 percent control efficiency for PM from documented watering.
- MS-06A, MS-06, MS-07, and MS-08 were evaluated at 500 annual hours of uncontrolled operation due to their emergency status.
- CG-21- CG-24, CM-04A, CM-04B, CM-09A – CM-09C, CM-10C,G, CM-11, CM-17 – CM-20, CM-21A – CM-21C, CM-22 – CM-25, CM-26A, CM-26B, KP-03, KP-06, KP-08 – KP-10, LM-02, RM-09, RM-10_1, RM-10_2, RM-31, RM-35, RM-37, RM-39 – RM-41, RM-51 – RM-56, RM-64, RM-65, RM-66_1, RM-66_2, RM-67, RM-68, SH-01 – SH-03, SH-04,5, and SH-07 – SH-09 were given a 90 percent control efficiency for PM from baghouses.
- Emissions from RM-77, RM-78, RM-79, RM-80, RM-81, RM-82, RM-83, RM-84, KP-11, KP-12, KP-13, SG-32, SG-33, and SG-34 were obtained from Construction Permit 102012-003.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1) The specific pollutant regulated by that rule is not emitted by the installation;
2) The installation is not in the source category regulated by that rule;
3) The installation is not in the county or specific area that is regulated under the authority of that rule;
4) The installation does not contain the type of emission unit which is regulated by that rule;
5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Alana L. Rugen, P.E.
Environmental Engineer III

RESPONSE TO COMMENTS

The draft Part 70 Operating Permit for Continental Cement Co., LLC (173-0001) was placed on public notice as of March 28, 2014, for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm on Friday, March 28, 2014. The Air Pollution Control Program did not receive any formal comments from the public, the applicant, or EPA during the 30-day comment period.

ALR

Mr. Sam Waters
Continental Cement Company LLC
10107 Highway 79
Hannibal, MO 63401

Re: Continental Cement Company LLC, 173-0001
Permit Number: **OP2011-046B**

Dear Mr. Waters:

Enclosed with this letter is your amended Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit. Revisions to the permit include:

- A maximum kiln feed rate of 226 tph as allowed by the Air Pollution Control Program in a letter dated July 12, 2011.
- Updating NSPS F standards as this regulation was amended February 12, 2013.
- Incorporation of Construction Permit 092013-017, Issued September 27, 2013.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Alana Rugen at the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:ark

Enclosures

c: Northeast Regional Office
PAMS File: 2014-02-063